



U.S. Department
of Transportation
**Federal Aviation
Administration**



SDR

Summary

Service Difficulty Reporting

November 2, 1997 - November 8, 1997

GENERAL AVIATION, ZAC-327

You can improve Air Safety by reporting the problem when you see it!

SECTION

- I Significant Occurrence Report
- II Domestic Service Difficulty Report
- III International Service Difficulty Report
- IV SDR Totals by District Office
- V Index By Aircraft Make and Model
- VI Joint Aircraft System/Component Code Table

ISSUE: 97-45



U.S. Department
of Transportation
**Federal Aviation
Administration**

SDR SUMMARY

General Aviation, ZAC-327



This summary includes domestic (United States) Service Difficulty Reports (SDRs) entered into the data base for aircraft weighing 12,500 lbs. and below. It also includes reports on aeronautical products (engines, propellers, and components), and all helicopters. A separate section for International SDRs for aircraft weighing 12,500 lbs. and under has also been included. Under a data exchange agreement, International SDRs are submitted to the FAA by the Civil Aviation Authority of other countries (currently, Canada - CAN, and Australia - AUS). All reports are sorted by aircraft make, model group (basic model), and Joint Aircraft System/Component (JASC) code. Within each aircraft model group, the specific model shown may vary, but similar types of reports will be grouped together and listed in ascending order by their JASC code. Each field contains all information submitted to the FAA. Some fields are not included in order to make the summary easier to read. Additional information may be obtained by referring to the "operator control number." Send your request to the Aviation Data Systems Branch, AFS-620 at the address or phone below.

The Regulatory Support Division (AFS-600) has established a "HomePage" on the Internet through which the same information is available. There is a large quantity of other information available through the AFS-600 HomePage such as the most current SDR system codes (i.e., Joint Aircraft System/Component Codes). The SDR Question and Answer Section of the Summary will also be transferred to the AFS-600 HomePage to simplify the process of preparing the SDR Summaries in the PDF format each week. There are "hot buttons" to take you to other locations and sites where FAA Flight Standards Service Information is available. The AFS-600 "HomePage" address is:

<http://www.mmac.jccbi.gov/afs/afs600>

"The Service Difficulty Reports in this publication are derived from unverified information submitted by the aviation community without FAA verification for accuracy. The number of SDRs submitted is not an indication of the mechanical reliability or fitness of an airline or individual operator, and the information should not be used as such."

Comments are welcomed and may be directed to:

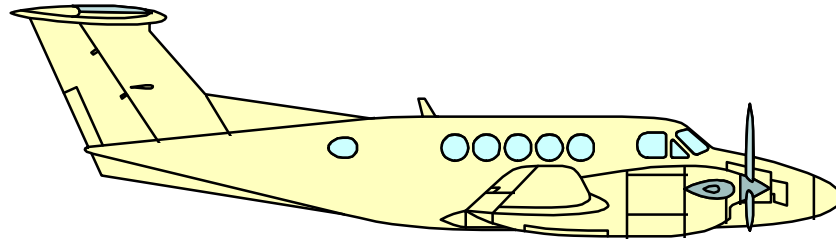
*Federal Aviation Administration
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125-5029
Phone: (405) 954-4171, Fax: (405) 954-4748*

Your continued participation is essential and is an integral part of ensuring aviation safety. Thank you for supporting the Service Difficulty Program! If you have any questions regarding this special notice you can contact John Jackson at (405) 954-6486, or Jim Gillespie at (405) 954-1141, or Blake McDonald at (405) 954-0307 in the Aviation Systems Branch (AFS-620). Their E-mail addresses are:

john_e_jackson@mmacmail.jccbi.gov

james_gillespie@mmacmail.jccbi.gov

blake_mcdonald@mmacmail.jccbi.gov



SIGNIFICANT OCCURRENCE REPORT





U.S. Department
of Transportation
**Federal Aviation
Administration**

THE SIGNIFICANT OCCURRENCE REPORT



The Significant Occurrence Report is a compilation all of the star bordered reports that appear in the General Aviation Service Difficulty Report (SDR) Summary, ZAC-327. The Significant Occurrence Report is used to highlight industry problem areas to field inspectors and the aviation public.

Limited analysis is performed by the Aviation Data Systems Branch, AFS-620 during the preparation of the "Significant Occurrence Report", which is generated each week and is included in the front of the Air Carrier SDR Summary. Significant Reports are hand selected by AFS-620's inspectors based on the individual merit of each report. The criteria for selection includes, but is not limited to, items that indicate high failure rates; items related to accidents or incidents; or design or maintenance failures which may affect the safe operation of the aircraft.

In some cases, this limited analysis of SDR data leads to the preparation of information bulletins which are routed to the appropriate product certification office for further investigation of the problem. The end result may be the issuance of an airworthiness directive (AD) by the Aircraft Certification Service (AIR) if warranted.

The Significant Occurrence Report (section I) of the weekly SDR Summary is not intended to be a summary of all significant events and should not be used as such. We recommend that you review further the applicable sections of the SDR summary that may be of interest.

GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT

11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2720	6054D	BEECH				PULLEY	MISSING		9/1/97
*****	CE856	F33A					RUDDER CABLE		97ZZZX4622
DURING A GEAR UP LANDING REPAIR, NOTICED A RUDDER CABLE PULLEY MISSING AND HAD NEVER BEEN INSTALLED AT BEECH. CABLE DEFECTON DUE TO THE MISSING PULLEY WORE THE PAINT OFF STRUCTURE. A NEW PULLEY INSTALLED, RUDDER RE-RIGGED.									
8530	97090	CESSNA	CONT			VALVE	WORN	1062	10/23/97
*****	18266974	182Q	O470U			646286	CYL 1-2-5 EXH		97ZZZX4669
INSPECTION FOUND THE NITRALOY GUIDES WORE THE EX VALVE STEMS LEAVING STEPS IN THE STEM AT THE ENDS OF TRAVEL IN THE GUIDE. ONE VALVE HAD .070 INCH WEAR. SUBMITTER STATED CONTINENTAL SHOULD ISSUE A BULLETIN OR SERVICE LETTER ALERTING MECHANICS OF THIS PROBLEM.									
PNSA	9304F	CESSNA				SCREWS	LOOSE		10/18/97
5751	20800008	208					AILERON BAL WGT		PNSA971001
*****	AILERON JAMMED IN LEFT TURN PILOT WAS ABLE TO FREE-UP CONTROLS AND LAND SAFELY. FURTHER INVESTIGATION REVEALED SCREWS THAT ATTACH AILERON BALANCE WEIGHT TO LEADING EDGE OF AILERON HAD BACKED OUT TO THE POINT OF CATCHING THE TRAILING EDGE OF THE WING GAP FAIRING. RESECURED SCREWS NO FURTHER DAMAGE WAS FOUND. INSPECTED THREE OTHER C- 208 AIRCRAFT IN THE FLEET FOUND EACH OF THEM HAD BALANCE WEIGHT ATTACH SCREWS REQUIRING 1/4 TO 1/2 TURN TO TIGHTEN THEM.								
DKBA	761VX	CESSNA		MCAULY		LINK	BROKEN		9/13/97
6111	21062563	210M		D3A34C404		A4577	BLADE ACTUATE	1439	97ZZZX4651
*****	DURING A DISASSEMBLY INSPECTION OF PROPELLER LINK, THE BLADE ACTUATING ON THE NR 2 BLADE WAS BROKEN AT THE .4375 INCH BLADE BUTT ATTACH POINT AND THE CHROME PLATING ON THE BLADE PITCH FITTING WAS DETERIORATED AND SHOWED EXTENSIVE PITTING. SUSPECT POSSIBLE FAILURE TO REPLACE OR REWORK COMPONENTS DURING OVERHAUL. PHOTOS AVAILABLE UPON REQUEST.								
2140	4251C	CESSNA				LINE ASSY	CORRODED		10/8/97
*****	310R1382	310R				0800400239	PUMP TO HEATER		97ZZZX4655
LINE FROM HEATER FUEL PUMP TO HEATER INLET FOUND TO HAVE CORROSION, A PIN HOLE, AND CHAFING SPOTS.									
2140	4251C	CESSNA				FUEL LINE	CHAFED		10/8/97
*****	310R1382	310R				0800400237	HEATER MAIN FUEL		97ZZZX4654
MAIN HEATER FUEL FEED LINE FOUND TO HAVE CORROSION AND CHAFING SPOTS. RECOMMEND VISUAL INSPECTION THOROUGHLY, AND REPLACED IF DEFECTS ARE FOUND.									
HX1R	3515H	MOONE				PUSH/PULL TUBE	BROKEN	3345	9/23/97
2710	241034	M20J				73006000	AILERON		97ZZZX4672
*****	DURING CONTROL CHECK JUST PRIOR TO TAKEOFF, NOTED THE RIGHT AILERON DID NOT MOVE. INVESTIGATION REVEALED THE PUSH ROD LOCATED IN THE BELLY OF THE AIRCRAFT WAS BROKEN AT A WELD WHERE PART HAS A 90 DEGREE BEND. THE BREAK WAS JUST AT THE EDGE OF THE WELD. IT APPEARED THE CRACK STARTED ON THE INSIDE OF THE 90 DEGREE BEND AND TRAVELED UP THROUGH THE METAL TO NON-WELDED PORTION.								
2820	150KS	PIPER				HOSE FITTING	PLUGGED		10/18/97
*****	20678	PA20				AN8406D	RT FUEL TANK		97ZZZX4618
THIS AIRCRAFT WAS INVOLVED IN AN ACCIDENT. ON CLIMB-OUT, AIRCRAFT LOST POWER. LANDED ON LAST 100 FEET OF RUNWAY. AIRCRAFT NOSE-OVER, AND CAME TO A STOP INVERTED. AFTER REPAIR, NEW OWNER WAS INSPECTING FUEL SYSTEM AND FOUND RT FUEL TANK AFT OUTLET FITTING COMPLETELY PLUGGED WITH WHAT APPEARS TO BE DIRT.									
FTUR	4516X	PIPER				NUTPLATE	CRACKED	3485	10/2/97
5743	28R7635038	PA28R200				NAS680A4	MLG FWD TRUNNION		97ZZZX4632
*****	RIGHT FUEL TANK REMOVED TO FACILITATE OTHER MAINTENANCE. INBOARD LOWER NUTPLATE ON THE FORWARD GEAR TRUNNION WAS FOUND CRACKED. PART TT 3,484.7 HOURS. GEAR WAS REMOVED, NUTPLATE REPLACED.								

***** DENOTES SIGNIFICANT OCCURRENCE

I-SIGNIFICANT OCCURENCE REPORT- Page 1 of 2

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3230	2FOR 347570244	PIPER PA34200				BOLT	FAILED NLG DRAG LINK	1350	7/30/97 97ZZZX4617
*****	INVESTIGATION FOR NLG COLLAPSE ON LANDING FOUND BOLT CONNECTING DRAG LINK TO GEAR STRUT BROKEN. BOLT HAD A FATIGUE CRACK WHICH WORKED THROUGH BOLT DUE TO CYCLIC LOADING UNTIL BOLT FAILED DURING GEAR EXTENSION.								

(End of GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT)

FEDERAL AVIATION ADMINISTRATION
SIGNIFICANT OCCURRENCE REPORT INDEX

Showing Specific Part Numbers and Aircraft Model by Year

FOR THE PERIOD OF: 11/2/97 To 11/8/97

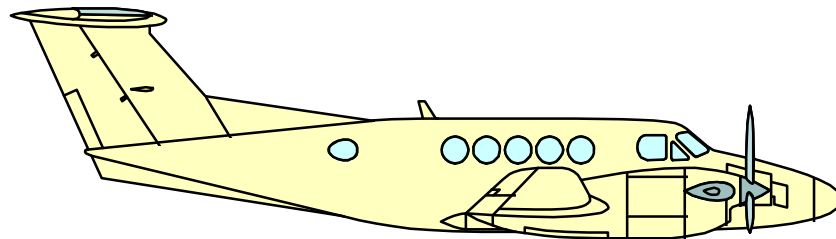
<u>PART NUMBER</u>			<u>YEAR</u>										
<u>PART NAME</u>	<u>ACFT MODEL</u>	<u>TOTAL</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
0800400237													
FUEL LINE	310R	2	-	-	-	-	1	-	-	-	-	-	1
TOTAL of # 0800400237 - - - - -		2	-	-	-	-	1	-	-	-	-	-	1
0800400239													
FUEL LINE	310R	1	-	-	-	-	-	-	-	-	-	-	1
LINE ASSY	310R	1	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 0800400239 - - - - -		2	-	-	-	-	-	-	-	-	-	-	2
36479971													
ACME NUT	DC851	1	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 36479971 - - - - -		1	-	-	-	-	-	-	-	-	-	-	1
513485													
CASTING	P2V5F	1	-	-	-	-	-	-	-	-	-	-	1
	SP2HJOHNSON	1	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 513485 - - - - -		2	-	-	-	-	-	-	-	-	-	-	2
646286													
EXHAUST VALVE	182P	1	-	-	-	-	-	-	-	-	-	1	-
VALVE	180H	1	-	-	-	-	1	-	-	-	-	-	-
	182P	1	-	-	-	-	-	-	-	1	-	-	-
	182Q	1	-	-	-	-	-	-	-	-	-	-	1
	310R	1	-	-	-	-	1	-	-	-	-	-	-
	340CESSNA	1	-	-	-	-	1	-	-	-	-	-	-
	A36	1	-	-	-	-	1	-	-	-	-	-	-
	PA46310P	2	-	-	-	1	-	1	-	-	-	-	-

FAA SIGNIFICANT OCCURRENCE REPORT INDEX 11/2/97 To 11/8/97 (cont'd)

<u>PART NUMBER</u>		<u>YEAR</u>												
<u>PART NAME</u>	<u>ACFT MODEL</u>	<u>TOTAL</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	
646286														
VALVE	unknown	3	-	-	-	1	-	1	1	-	-	-	-	
VALVE STEM	unknown	1	-	-	-	-	-	-	-	-	1	-	-	
VALVES	180H	1	-	-	-	-	1	-	-	-	-	-	-	
TOTAL of # 646286 - - - - -		14	-	-	-	2	5	2	1	1	1	1	1	
66001122														
BLOWER MOTOR	25B	1	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # 66001122 - - - - -		1	-	-	-	-	-	-	-	-	-	-	1	
7253501551														
DOOR PANEL	340B	1	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # 7253501551 - - - - -		1	-	-	-	-	-	-	-	-	-	-	1	
73006000														
PUSH/PULL TUBE	M20J	1	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # 73006000 - - - - -		1	-	-	-	-	-	-	-	-	-	-	1	
A4577														
LINK	210M	1	-	-	-	-	-	-	-	-	-	-	1	
LINK ARM	SU26M	1	-	-	-	1	-	-	-	-	-	-	-	
TOTAL of # A4577 - - - - -		2	-	-	-	1	-	-	-	-	-	-	1	
AN8406D														
HOSE FITTING	PA20	1	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # AN8406D - - - - -		1	-	-	-	-	-	-	-	-	-	-	1	
NAS680A4														
NUTPLATE	PA28R200	1	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # NAS680A4 - - - - -		1	-	-	-	-	-	-	-	-	-	-	1	
REM 40E														
SPARK PLUG	unknown	1	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # REM 40E - - - - -		1	-	-	-	-	-	-	-	-	-	-	1	
TOTAL for ALL (25) PART NUMBERS: - - - -		29	-	-	-	3	6	2	1	1	1	1	14	
END OF SIGNIFICANT OCCURRENCE REPORT INDEX														



DOMESTIC SERVICE DIFFICULTY REPORT



DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT**11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
1100	106EB 38497	BBAVIA 8GCBC				NUMBERS	TOO SMALL REGISTRATION	11	3/10/97 97ZZZX4664
NEW AIRCRAFT, DIRECT FROM FACTORY. DURING ACCEPTANCE INSPECTION, NOTICED REGISTRATION NUMBERS NOT PER FAR 45. THEY WERE ONLY 6 INCHES WIDE.									
3222	180ED M1622	BEECH C23				COMPRESSION ASSY 16981001215513	FAILED NLG STRUT	3575	9/20/97 97ZZZX4629
COMPRESSION ASSEMBLY CRACKED ALLOWING PIN TO COME OUT. ON LANDING, NOSE FORKS SEPARATED FROM COMPRESSION ASSY. THIS ALLOWED NOSE FORKS TO COLLAPSE ALLOWING PROPELLER TO STRIKE THE RUNWAY CAUSING SUDDEN STOPPAGE OF THE ENGINE.									
3222	24041 M1930	BEECH C23				NOSE GEAR	DEPARTED TRUNNION		9/25/97 97ZZZX4671
NOSE GEAR DEPARTED AIRCRAFT ON TAKEOFF. THE NOSE GEAR TRUNNION INSIDE THE ENGINE MOUNT CRACKED AT BOLT HOLES FOR NOSE WHEEL STEERING. THE CRACK PROGRESSED FROM THE BOLT HOLES TO CIRCLE THE TRUNNION DOWN WIND UNTIL IT COMPLETED 360 DEGREES. AT THAT TIME, THE GEAR DEPARTED THE AIRCRAFT. SUSPECT HARD LANDING IN CROSS-WIND OR POSSIBLE TOWING AND TURNING TOO FAR.									
2720 *****	6054D CE856	BEECH F33A				PULLEY	MISSING RUDDER CABLE		9/1/97 97ZZZX4622
DURING A GEAR UP LANDING REPAIR, NOTICED A RUDDER CABLE PULLEY MISSING AND HAD NEVER BEEN INSTALLED AT BEECH. CABLE DEFECTION DUE TO THE MISSING PULLEY WORE THE PAINT OFF STRUCTURE. A NEW PULLEY INSTALLED, RUDDER RE-RIGGED.									
8120	7250Z EA449	BEECH B36TC	CONT TSIO520UB			TURBOCHARGER 4066109029	SEAL LEAK ENGINE		10/16/97 97ZZZX4638
FOUND OIL LEAKING FROM TURBOCHARGER ON COMPRESSOR SIDE AND EXHAUST SIDE OF TURBOCHARGER. SENT IN FOR OVERHAUL AND FOUND EXHAUST TURBINE WHEEL OUT OF BALANCE WHICH WORE OUT THE OIL SEALS ON THE HOT AND COLD SIDE OF TURBO. ESTIMATED TIME ON PART, 1,000 HOURS.									
BSYA 3230	33DK TH372	BEECH 58				GEAR	FAILED MLG		10/28/97 97ZZZX4665
LANDING GEAR WOULD NOT COME DOWN ELECTRICALLY OR MANUALLY. BELLIED AIRCRAFT IN. CAUSE UNKNOWN AT THIS TIME AS TO WHY GEAR WOULD NOT EXTEND.									
BSYA 5210	7383R TH502	BEECH 58				DOOR	OPENED CABIN		10/24/97 97ZZZX4666
ON TAKEOFF OUT OF CHARLOTTE, NC, CLT, CABIN DOOR CAME OPEN, RETURNED TO CLT. MAINTENANCE INSPECTED DOOR, COULD NOT FIND ANY PROBLEMS. INSTALLED DOOR HANDLE KIT 35-5050-1P FOR PRECAUTIONARY MEASURES.									
2436	8193U 15077908	CESSNA 150M				REGULATOR VR600	FAILED DC SYSTEM		10/17/97 97ZZZX4639
AIRCRAFT ELECTRICAL SYSTEM EXPERIENCED ON ABRUPT MALFUNCTION, NO CHARGING CONDITION. FOUND VOLTAGE REGULATOR FAILED.									
5753	1533U U20602234	CESSNA U206F			122010024	RIB 12201041	CRACKED RT FLAP	6804	10/9/97 97ZZZX4620
DURING A 100-HOUR INSPECTION, NOTED BLACK STAINS AROUND THE BRACKET WHICH ATTACHES THE OUTBOARD PUSH ROD TO THE RIGHT FLAP. FURTHER INVESTIGATION REVEALED A CRACK IN THE NOSE RIB AT STA 112.50. A NEW PART WAS INSTALLED. SUBMITTER SUGGESTS AGE AND MUCH USE WERE REASONS FOR FAILURE.									
7120	1523U U20602234	CESSNA U206F				MOUNT 121343316	CRACKED RT AFT SUPPORT	6804	10/9/97 97ZZZX4619
WHILE INSPECTING BEFORE RE-INSTALLING ENGINE, FOUND RT REAR ENGINE MOUNT SUPPORT HAD A 1 INCH CRACK. A REPLACEMENT PART WAS INSTALLED. AGE WAS PROBABLY THE CAUSE.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
PNSA 5751 *****	9304F 20800008	CESSNA 208				SCREWS	LOOSE AILERON BAL WGT		10/18/97 PNSA971001
AILERON JAMMED IN LEFT TURN PILOT WAS ABLE TO FREE-UP CONTROLS AND LAND SAFELY. FURTHER INVESTIGATION REVEALED SCREWS THAT ATTACH AILERON BALANCE WEIGHT TO LEADING EDGE OF AILERON HAD BACKED OUT TO THE POINT OF CATCHING THE TRAILING EDGE OF THE WING GAP FAIRING. RESECURED SCREWS NO FURTHER DAMAGE WAS FOUND. INSPECTED THREE OTHER C- 208 AIRCRAFT IN THE FLEET FOUND EACH OF THEM HAD BALANCE WEIGHT ATTACH SCREWS REQUIRING 1/4 TO 1/2 TURN TO TIGHTEN THEM.									
3230	6355C 21063874	CESSNA T210N				O-RING MS28775112	FAILED NLG ACTUATOR	2000	9/3/97 97ZZZX4623
NLG ACTUATOR FWD O-RING BECAME HARD, BRITTLE, WAS CUT IN 2 SPOTS .25 INCH APART, THEN ROLLED. WHEN GEAR EXTENDED FOR LANDING, HYD PUMP FORCED ALL THE HYD FLUID OVERBOARD THROUGH THE CUT O-RING. ELECTRIC HYD PUMP CONTINUED TO RUN UNTIL THE MAIN GEAR CIRCUIT BREAKER OPENED. AUX HYDRAULIC HAND PUMP WAS USED TO GET THIS GEAR DOWN, ALL THE HYD FLUID WAS PUMPED OVERBOARD. THE NLG WENT TO THE DOWN AND LOCKED POSITION, BUT THE MLG WENT TO THE TRAIL POSITION. NLG HELD ENG AND PROP UP, BUT WEIGHT OF ACFT CAUSED MLG TO COLLAPSE. SUBSTANTIAL DAMAGE TO BELLY AND TAIL. NO INJURIES.									
2140 *****	4251C 310R1382	CESSNA 310R				LINE ASSY 0800400239	CORRODED PUMP TO HEATER		10/8/97 97ZZZX4655
LINE FROM HEATER FUEL PUMP TO HEATER INLET FOUND TO HAVE CORROSION, A PIN HOLE, AND CHAFING SPOTS.									
2140 *****	4251C 310R1382	CESSNA 310R				FUEL LINE 0800400237	CHAFED HEATER MAIN FUEL		10/8/97 97ZZZX4654
MAIN HEATER FUEL FEED LINE FOUND TO HAVE CORROSION AND CHAFING SPOTS. RECOMMEND VISUAL INSPECTION THOROUGHLY, AND REPLACED IF DEFECTS ARE FOUND.									
DYPR 3230	854RM 4140959	CESSNA 414				TORQUE TUBE 504501019	CRACKED LT MLG	2844	10/8/97 97ZZZX4640
CRACK FOUND AT THE FORK BOLT ATTACHMENT. FOUND DURING ANNUAL INSPECTION. CRACK LENGTH WAS .50 INCH.									
7810	78NG 414A0617	CESSNA 414A				EXHAUST ELBOW	CRACKED EXHAUST WYE		10/9/97 97ZZZX4626
DURING MAINTENANCE CHECK, EXHAUST STAIN NOTED ALONG A WELD ON THE ELBOW FROM THE EXH WYE TO THE EXH WASTEGATE. CLOSER EXAMINATION SHOWED THE ELBOW CRACKED ALONG EDGE OF THE WELD ON BOTH SIDES. ON THIS PARTICULAR PART, WHICH IS IDENTIFIED AS A PMA REPLACEMENT PART, THE ELBOW IS MADE IN TWO PIECES FITTED TOGETHER AT AN APPROXIMATE 45 DEGREE INTERSECTION TO MAKE THE NECESSARY 90 DEGREE INSTALLATION REQUIREMENT. ORIGINAL EQUIPMENT ELBOWS AS NOTED ON OTHER ACFT (CESSNA 340A/414 AND OTHER 414A'S) DO NOT HAVE SUCH A SPLICE WELD AS THIS ONE DOES AND CRACKS IN THIS PARTICULAR AREA HAVE NOT BEEN OBSERVED IN THOSE PARTS.									
3244	68670 421C1084	CESSNA 421C				TIRE 650C861	FAILED TREAD AREA	390	10/22/97 97ZZZX4624
THIS TUBE-TYPE MAIN LANDING GEAR TIRE WAS INSTALLED AND OPERATED FOR 390 FLIGHT HOURS. ESTIMATE 290 LANDINGS. THE TIRE WAS FOUND TO HAVE BULGES ON THE EDGE OF THE TREAD AREA. THESE BULGES FEEL LIKE AIR POCKETS BETWEEN THE TREAD AND THE CORD. THE TIRE WAS DEFLATED AND REMOVED FOR INSPECTION AND VERIFIED TO HAVE SEPARATION OF THE TREAD APPROXIMATELY 1 INCH WIDE BY 10 INCHES LONG. THE TIRE WAS REPLACED WITH A NEW UNIT.									
BTAA 3040	97S 5500238	CESSNA 550			57033	FAN	FAILED CABIN	3840	9/16/97 97ZZZX4614
DURING DESCENT, CABIN AND DEFOG FANS WERE SELECTED TO 'HIGH'. A BURNT SMELL AND SMOKE CAME FROM DEFOG OUTLETS. FANS WERE TURNED OFF AND AIRCRAFT DIVERTED TO CLOSER APT. SMOKE DISSIPATED AFTER TURNING OFF FANS. INVESTIGATION FOUND THE DEFOG FAN WAS INOPERABLE. AIRCRAFT FERRIED TO A LOCATION WHERE MAINTENANCE COULD REPLACE FAN. FAN WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE. (X)									
MUCR 5533	12AM 5000235	CESSNA 500CESSNA				SKIN 55120966	CORRODED VENTRAL FIN	6303	10/17/97 97ZZZX4647
PRE-UNIT, S/N 0274, AIRCRAFT UTILIZE - .020 INCH SKIN FILLED WITH FOAM FOR RIGIDITY IN THE CONSTRUCTION OF THE VENTRAL FIN. THE FOAM ALLOWS MOISTURE TO COLLECT AND CORROSION TO DEVELOP ON THE INSIDE SURFACES OF THE SKINS. POST-UNIT, S/N 0274, DELETES THE FOAM.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
ASWA 6120	140SA 267	DHAV DHC6300				PRESS SWITCH 8190024	FAILED LT ENGINE		9/28/97 97ZZZX4613
FLIGHT CREW REPORTED LEFT PROPELLER FEATHERED DURING TAKEOFF. MAINTENANCE PERSONNEL COULD NOT DUPLICATE PROBLEM ON GROUND. REPLACED LEFT ENGINE TORQUE PRESSURE SWITCH AS A TROUBLESHOOTING PRECAUTION.									
HX1R 2710	3515H 241034	MOONE M20J				PUSH/PULL TUBE 73006000	BROKEN AILERON	3345	9/23/97 97ZZZX4672
***** DURING CONTROL CHECK JUST PRIOR TO TAKEOFF, NOTED THE RIGHT AILERON DID NOT MOVE. INVESTIGATION REVEALED THE PUSH ROD LOCATED IN THE BELLY OF THE AIRCRAFT WAS BROKEN AT A WELD WHERE PART HAS A 90 DEGREE BEND. THE BREAK WAS JUST AT THE EDGE OF THE WELD. IT APPEARED THE CRACK STARTED ON THE INSIDE OF THE 90 DEGREE BEND AND TRAVELED UP THROUGH THE METAL TO NON-WELDED PORTION.									
3244	500PJ 668	MTSBSI MU2B36				TIRE 850T061	SEPARATED RT MLG	284	4/2/97 97ZZZX4687
RIGHT HAND MAIN GEAR TIRE TREAD SEPARATED FROM CASING ALONG INBOARD EDGE COMPLETELY AROUND CIRCUMFERENCE. OCCURRED ON LANDING. TIRE REMAINED INFLATED. TREAD STAYED ATTACHED AROUND OUTBOARD EDGE CIRCUMFERENCE. THIS WAS ONE OF THREE SIMILAR OCCURRENCES WITHIN 30 DAYS ON TWO DIFFERENT AIRCRAFT (BOTH MU-2'S). TIRE RETURNED TO MFG FOR EVALUATION.									
3244	500PJ 668	MTSBSI MU2B36			GOODYEAR	TIRE 850T061	SEPARATED LT MLG	228	4/30/97 97ZZZX4686
LEFT HAND MAIN GEAR TIRE TREAD SEPARATED FROM CASING ALONG INBOARD EDGE FOR APPROXIMATELY 10 INCHES. OCCURRED ON LANDING. TIRE REMAINED INFLATED. THIS WAS ONE OF THREE SIMILAR OCCURRENCES WITHIN 30 DAYS ON TWO DIFFERENT MU-2'S. TIRE WAS RETURNED TO MFG FOR EVALUATION.									
3244	869P 692	MTSBSI MU2B36			GOODYEAR	TIRE 850T061	SEPARATED RT MLG	300	4/17/97 97ZZZX4685
RIGHT HAND MAIN GEAR TIRE TREAD SEPARATED FROM CASING ALONG INBOARD EDGE FOR APPROXIMATELY 1 INCH. SEPARATION WAS NOTICED DURING A POST-FLIGHT WALK AROUND INSPECTION. THIS WAS ONE OF THREE SIMILAR OCCURRENCES WITHIN 30 DAYS ON TWO DIFFERENT MU-2'S. TIRE WAS RETURNED TO MFG FOR EVALUATION.									
2820	150KS 20678	PIPER PA20				HOSE FITTING AN8406D	PLUGGED RT FUEL TANK		10/18/97 97ZZZX4618
***** THIS AIRCRAFT WAS INVOLVED IN AN ACCIDENT. ON CLIMB-OUT, AIRCRAFT LOST POWER. LANDED ON LAST 100 FEET OF RUNWAY. AIRCRAFT NOSE-OVER, AND CAME TO A STOP INVERTED. AFTER REPAIR, NEW OWNER WAS INSPECTING FUEL SYSTEM AND FOUND RT FUEL TANK AFT OUTLET FITTING COMPLETELY PLUGGED WITH WHAT APPEARS TO BE DIRT.									
2701	15831 287325174	PIPER PA28140				CONTROL WHEEL 7927600	BROKE PILOT SIDE	7452	5/16/97 97ZZZX4668
THE CONTROL WHEEL COMPLETELY BROKE BETWEEN THE OUTER GRIP AND THE HUB. PILOT REPORTED THE BROKEN PART TO THE FLIGHT SCHOOL AFTER FLYING AT THE AIRFIELD ON A DAY WITH HIGH CROSS-WINDS. THE BROKEN CONTROL WHEEL WAS REPLACED WITH A SERVICEABLE PART.									
FTUR 5730	4516X 28R7635068	PIPER PA28R200				SKIN 6206102	CRACKED RT INBD WING	3485	10/2/97 97ZZZX4631
DURING 100-HOUR INSPECTION, THE FORWARD WING WALK AREA WAS FOUND CRACKED. THE AREA IS DIFFICULT TO INSPECT AND MUST BE VIEWED THROUGH THE LANDING GEAR WELL. THE SKIN IS DOUBLED WITH A CORRUGATED PIECE AND THE CRACKS WERE LOCATED AT EACH RADIUS OF THE CORRUGATIONS. SKIN ASSEMBLY REPLACED.									
FTUR 5743	4516X 28R7635038	PIPER PA28R200				NUTPLATE NAS680A4	CRACKED MLG FWD TRUNNION	3485	10/2/97 97ZZZX4632
***** RIGHT FUEL TANK REMOVED TO FACILITATE OTHER MAINTENANCE. INBOARD LOWER NUTPLATE ON THE FORWARD GEAR TRUNNION WAS FOUND CRACKED. PART TT 3,484.7 HOURS. GEAR WAS REMOVED, NUTPLATE REPLACED.									

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2913	29CA	PIPER				PUMP	LEAKED	3636	10/10/97
	31T780076	PA31T				1213HGB310	LT ENG HYD		97ZZZX4621
	PILOT REPORTED THE LANDING GEAR HAD A PROBLEM DURING EXTENSION COMPLETING ITS CYCLE. AFTER SEVERAL TRIES, THE CYCLE COMPLETED AND A SAFE LANDING MADE. WHILE TROUBLESHOOTING, NOTED HYDRAULIC FLUID LEAKING FROM THE DRAIN IN THE BASE OF THE HYD PUMP ON LT ENG AND SPREAD OVER THE UNDERSIDE OF THE WING. AN OVERHAULED PUMP WAS INSTALLED. A NEW FILTER ON THE LT WAS INSTALLED AND THE RESERVOIR WAS FILLED. THE GEAR WAS CYCLED 3 TIMES ON JACKS WITH NO FAULTS. SUBSEQUENT TEST FLIGHT NOTED NO FAULTS THROUGH SEVERAL CYCLES.								
3230 *****	2FOR	PIPER				BOLT	FAILED	1350	7/30/97
	347570244	PA34200					NLG DRAG LINK		97ZZZX4617
	INVESTIGATION FOR NLG COLLAPSE ON LANDING FOUND BOLT CONNECTING DRAG LINK TO GEAR STRUT BROKEN. BOLT HAD A FATIGUE CRACK WHICH WORKED THROUGH BOLT DUE TO CYCLIC LOADING UNTIL BOLT FAILED DURING GEAR EXTENSION.								
3030	28DA	PIPER				CONNECTOR	BURNED	3574	10/4/97
	428001078	PA42					PITOT HEAT SW		97ZZZX4630
	CONNECTOR E324 WAS FOUND SEVERELY OVERHEATED IN SWITCH PANEL OVERHEAD. CONTROLS PITOT STALL/HEAT. SUSPECT UNDERRATED CONNECTOR FOR AMPERAGE.								
LJA	51NS	STBROS				TRANSMITTER	STUCK		10/17/97
7931	SH1843	SC7SERIES3				51224128R	LT ENG OIL		97ZZZX4634
THE OIL PRESSURE TRANSMITTER STUCK AT A LOW OIL PRESSURE. NORTH STAR AIR CARGO ALREADY CHECKS THE OIL PRESSURE INDICATION SYSTEM IAW THEIR A.A.I.P.									
(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)									

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS**11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 2312	45RP 45521	BELL 206L1			KTR993	TRANSMITTER 063100700	INOPERATIVE COCKPIT VHF		10/10/97 HEEA0011434
TRANSMITTER INOPERATIVE.									
HEEA 2913	3108E 51498	BELL 206L3				PUMP 206076030101	FAILED HYD SYS		10/10/97 HEEA0011422
SPRING AND CLIP MISSING FROM INPUT SHAFT.									
HEEA 3120	42EA 51542	BELL 206L3				CLOCK 206070275005	BROKEN COCKPIT		10/10/97 HEEA0011439
SET KNOB BROKEN OFF.									
HEEA 3416	2275Y 3626	BELL 206B3			ACK	ENCODER A30	FAILED COCKPIT ALTITUDE		10/10/97 HEEA0011438
ENCODER DOES NOT HOLD CALIBRATION. CALIBRATE TO 28VDC NOT 12VDC.									
HEEA 3416	21240 45647	BELL 206L1				BARO ANEROID D120P2T	LEAK COCKPIT		10/15/97 HEEA0011520
BAROMETRIC ANEROID EXCESSIVE CASE LEAKAGE.									
HEEA 3421	6610E 51424	BELL 206L3				ATTITUDE GYRO 206075607103	FAULTY COCKPIT		10/10/97 HEEA0011447
ATTITUDE GYRO WILL NOT STAY CAGED.									
HEEA 5321	8594X 51531	BELL 206L3				FLOOR 206031313199	SEPARATION BAG COMPT		10/10/97 HEEA0011446
BAGGAGE FLOOR CORROSION AND SEPARATION.									
HEEA 5532	6160Y 51609	BELL 206L3				FIN ASSY 206023126102	CORRODED VERTICAL FIN		10/10/97 HEEA0011445
FIN ASSY SKIN CORRODED BEYOND LIMITS AT THIS STATION.									
HEEA 6330	45RP 45521	BELL 206L1				RESTRAINT 206033506101	FAILURE M/R XMSN		10/15/97 HEEA0011509
TWO EACH SPHERICAL BEARINGS ARE SPINNING IN BORES.									
HEEA 6330	45RP 45521	BELL 206L1				LINK ASSY 206033554101	DEFECTIVE M/R		10/15/97 HEEA0011511
LINK ASSY LOWER ELASTOMERS IS PROTRUDING.									
HEEA 6330	3892R 45594	BELL 206L1				RESTRAINT 206033506101	FAILURE M/R XMSN		10/15/97 HEEA0011512
RESTRAINT HAS SEPARATED BEARINGS BEYOND LIMITS.									
HEEA 6330	3892R 45594	BELL 206L1				FLEXURE 206033516101	FAILURE M/R GR BOX		10/15/97 HEEA0011503
FLEXURE ELASTOMERIC FAILURE.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 6330	6748D 51106	BELL 206L3				RESTRAINT 206033506101	SEPARATED XMSN		10/15/97 HEEA0011502
	RUBBER SEPARATED.								
HEEA 6330	6610Y 51419	BELL 206L3				STOP ASSY 206033518007	WORN M/R XMSN		10/15/97 HEEA0011504
	STOP IS WORN.								
6420		BELL 206L1				PITCH HORN 206011809005	DEFECTIVE T/R HUB		10/28/97 97ZZZX4673
	PITCH HORN ON T/R HUB ASSY HAS A LOOSE STUD.								
HEEA 6710	2277A 3630	BELL 206B3				ACTUATOR 206062721113	STRIPPED INSERT		10/10/97 HEEA0011421
	ACTUATOR INSERT FOR COVER WIRES STRIPPED.								
HEEA 6710	31077 51520	BELL 206L3				ACTUATOR 206062721109	INOPERATIVE M/R CONTROL		10/15/97 HEEA0011523
	ACTUATOR INOPERATIVE.								
7210	108FH 2770	BELL 206B	ALLSN 250C20B			GEARBOX CAG37127	LEAKED ENGINE	4702	10/17/97 97ZZZX4656
	REMOVED GEARBOX DUE TO TORQUEMETER PISTON PLUG LEAKING OIL AT A RATE OF ONE DRIP EVERY 4 SECONDS.								
HEEA 6340	1079U 31122	BELL 212				TACH GENERATOR 2514022A703	SHAFT WORN ROTOR		10/10/97 HEEA0011452
	ROTOR TACH GEN SHAFT WORN.								
HEEA 2210	8045T 28101	BELL 214ST				AMPLIFIER ASSY 214074303115	FAILED AUTO FLIGHT		10/10/97 HEEA0011431
	AUTO PILOT AMP WILL NOT ENGAGE, MONITOR TEST OR ALIGN.								
HEEA 2424	8045T 28101	BELL 214ST				REGULATOR 214175153105	FAILED AC SYS		10/15/97 HEEA0011517
	GENERATOR GOES OFF LINE.								
HEEA 2822	6957Y 28139	BELL 214ST				CARTRIDGE 9A1746	DEFECTIVE FUEL PUMP		10/15/97 HEEA0011522
	PUMP POPPING CIRCUIT BREAKER.								
HEEA 3212	6957Y 28139	BELL 214ST				SOLENOID VALVE V80500113	LEAKING FLOAT		10/10/97 HEEA0011456
	FLOAT SOLENOID VALVE LEAKING.								
HEEA 3212	59806 28140	BELL 214ST				FLOAT D34038102	DEFECTIVE FWD RT ASSY		10/10/97 HEEA0011457
	UNBONDED FLOAT INLET VALVE.								

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 3425	6957Y 28139	BELL 214ST				INDICATOR 1113025	DEFECTIVE COCKPIT HSI		10/10/97 HEEA0011424
HSI INDICATOR GREEN NEEDLE RACHETS VERY LOUDLY.									
HEEA 6330	8045T 28101	BELL 214ST				TORSION ARM ASSY 214031614125	FAILURE M/R XMSN		10/15/97 HEEA0011505
BEARINGS TORN AND SPLIT UNDER TWO PLATES.									
GS1R 6330	911EC 47505	BELL 222				ROD END 222031622105	WORN NODAL BEAM	303	10/20/97 97ZZZX4681
NODAL BEAM INSPECTION FOUND ROD END WORN. REPLACED WITH NEW ROD END.									
HEEA 2150	230UN 23009	BELL 230				VALVE 2730502	STICKS AIR COND	4017	10/14/97 HEEA0011493
VALVE STICKS IN "ON" POSITION.									
HEEA 6330	230UN 23009	BELL 230				ISOLATION MOUNT 222331618105	WORN M/R XMSN	545	10/14/97 HEEA0011494
ISOLATION MOUNT WORN BEARING.									
HEEA 6330	230UN 23009	BELL 230				ROD END 230030535101	WORN M/R XMSN		10/14/97 HEEA0011481
ROD END BUSHING WORN.									
HEEA 6410		BELL 230				TAB ASSY TRIM 222015624101	MIS MFG T/R		10/14/97 HEEA0011486
THREE TRIM TABS WERE BONDED OFFSET AND ONE TAB HAS ONLY ON SIDE. TWO EACH WERE RECEIVED ON 9-19-97,									
HEEA 6520	230UN 23009	BELL 230				CHIP DETECTOR 222340059101	FAULTY T/R GR BOX		10/14/97 HEEA0011491
T/R GEARBOX OIL DRAINS WHEN CHIP DETECTOR PULLED.									
HEEA 2822	141MA 53016	BELL 407				CARTRIDGE 1C2710	FAILED FUEL PUMP		10/14/97 HEEA0011485
PUMP WON'T COME ON WHEN SWITCHED TO ON POSITION.									
HEEA 2844	427PH 53059	BELL 407				TRANSMITTER 407375007103	FAULTY FUEL PRESS		10/9/97 HEEA0011418
FUEL PRESS TRANSMITTER WON'T COME ON LINE UNTIL CIRCUIT BREAKER IS PULLED AND PUSHED BACK IN.									
HEEA 2844	57416 53070	BELL 407				TRANSMITTER 407375007103	FAILED FUEL PRESS		10/14/97 HEEA0011464
FUEL PRESSURE PEGS OUT INTERMITTENTLY.									
GS1R 2915	98VG 53171	BELL 407				VALVE 206076036101	FAILED HYD RELIEF	15	10/20/97 97ZZZX4674
INSPECTION FOUND HYDRAULIC RELIEF VALVE FAILED. REPLACED WITH NEW RELIEF VALVE.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 3340	437PH 53072	BELL 407				LAMP A469B	FAILED STROBE	121	10/15/97 HEEA0011525
FLASH TUBE BURNT OUT. REPLACED WITH SERVICEABLE FLASH TUBE.									
HEEA 6300	57416 53070	BELL 407				LINK 406312103101	WORN M/R	940	10/14/97 HEEA0011498
LINK HAS WORN BEARINGS. SERIAL NUMBERS REMOVED ARE NHFS2265 AND NHFS2337.									
HEEA 6510	407PH 53003	BELL 407				DISK COUPLING 406040340101	CRACKED T/R		10/14/97 HEEA0011479
DISC PACK CRACKED.									
HEEA 6510	407PH 53003	BELL 407				DISK COUPLING 406040340101	CORRODED T/R		10/14/97 HEEA0011480
DISK COUPLING PITTED AND CORRODED.									
HEEA 6510	407PH 53003	BELL 407				DISK COUPLING 406040340101	CRACKED T/R		10/14/97 HEEA0011477
SUSPECTED CRACK; DENT ON 2ND DISC.									
HEEA 6510	141MA 53016	BELL 407				DISK COUPLING 406040340101	CRACKED T/R		10/14/97 HEEA0011478
NR7 THOMAS COUPLING DISC CRACKED.									
HEEA 6510	427PH 53059	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE	51	10/14/97 HEEA0011463
ONE DISC ON COUPLING FOUND CRACKED ON DAILY INSPECTION.									
HEEA 6510	57416 53070	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE	34	10/14/97 HEEA0011476
FIRST DISC PACK COUPLING, FORWARD OF T/R GEARBOX COUPLING, WAS FOUND CRACKED DURING DAILY INSPECTION.									
GCHA 7160	176PA 53160	BELL 407				VALVE 470632	FAILED PARTICLE SEP	197	9/15/97 GCHA0000015
PARTICLE SEPARATION. VALVE NOT WORKING - FAILS TO ACTUATE. REMOVED AND REPLACED VALVE. (X)									
GCHA 7320	176PA 53160	BELL 407	ALLSN 250C47B			ADAPTER 40704031601	WORN HMU	244	10/1/97 GCHA0000014
PART IS DIMENSION OVER MAXIMUM. SPLINES WORN. SUSPECT IMPROPER TYPE/LACK OF LUBRICATION FROM FACTORY. REMOVED AND REPLACED ADAPTER AND SHAFING, BEARINGS AND RETAINING WASHERS REPLACED. CYCLES: 215. (X)									
HEEA 7810	437PH 53072	BELL 407				EXHAUST STACK 407063001101	CRACKED ENGINE	918	10/14/97 HEEA0011472
EXHAUST STACK CRACKED.									
HEEA 7931	437PH 53072	BELL 407				INDICATOR 407375004101	DEFECTIVE ENG OIL		10/16/97 HEEA0011527
OIL PRESSURE INDICATOR FLASHES IN FLIGHT.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 2211	2014K 33020	BELL 412				COMPUTER 4025008918	FAILS TEST AFCS		10/15/97 HEEA0011516
AFCS COMPUTER FAILS 31.2 AND FOLLOWING TEST ON SST.									
HEEA 2824	7128R 36007	BELL 412				VALVE L88010501	INOPERATIVE FUEL SYS		10/15/97 HEEA0011519
VALVE INOPERATIVE.									
HEEA 3213	2014K 33020	BELL 412				CAP ASSY 212030436007	CRACKED SKID FWD		10/10/97 HEEA0011453
SKID ASSY MOUNT PADS CRACKED.									
HEEA 3213	2014K 33020	BELL 412				CAP ASSY 212030436007	PADS CRACKED SKID		10/10/97 HEEA0011455
SKID ASSY MOUNT PADS CRACKED.									
HEEA 3213	21498 36003	BELL 412				CAP ASSY 212030436007	HORN SKID FWD		10/15/97 HEEA0011514
CAP ASSY FWD RUBBER WORN.									
HEEA 3421	7128R 36007	BELL 412				INDICATOR 1113034	MALFUNCTION COCKPIT ATTITUDE		10/10/97 HEEA0011423
ATTITUDE INDICATOR ROLLS LEFT 10 TO 30 DEGREES.									
HEEA 3431	1202T 33112	BELL 412			VIR32	RECEIVER 6226137001	INOPERATIVE COCKPIT LOC		10/10/97 HEEA0011427
LOCALIZER INOPERATIVE.									
HEEA 3444	5759N 33002	BELL 412			RT220	ALTIMETER 4004437901	INOPERATIVE RADAR ALTIMETER		10/15/97 HEEA0011518
ALTIMETER INOPERATIVE.									
HEEA 5260	293CA	BELL 412				ACTUATOR SYLC502283	DEFECTIVE STEP		10/10/97 HEEA0011450
STEP ACTUATOR TRIPS CIRCUIT BREAKER.									
HEEA 5260	3893N 33010	BELL 412				ACTUATOR 212075418105	FAILED STEP		10/16/97 HEEA0011526
STEP ACTUATOR WILL NOT MOVE.									
HEEA 5260	3893P 33012	BELL 412				STEP ACTUATOR SYLC502283	FAILED STEP		10/10/97 HEEA0011440
STEP ACTUATOR NOT MOVING.									
HEEA 5260	107X 33113	BELL 412				ACTUATOR SYLC502283	INOPERATIVE STEP		10/15/97 HEEA0011510
STEP ACTUATOR INOPERATIVE; STUCK.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 5260	141PH 33197	BELL 412				ACTUATOR 212075418103	MALFUNCTION STEP		10/10/97 HEEA0011444
STEP ACTUATOR MOVES SLOWLY.									
HEEA 5260	22347 36005	BELL 412				ACTUATOR 212075418103	FAILED STEP		10/10/97 HEEA0011442
STEP ACTUATOR INOPERATIVE. QUIT MOVING.									
HEEA 5260	22347 36005	BELL 412				STEP ACTUATOR 212075418003	FAILED STEP		10/10/97 HEEA0011441
STEP ACTUATOR QUIT WORKING.									
HEEA 6710	293CA	BELL 412				ACTUATOR ROTARY 214001347005	BINDING M/R CONTROL		10/10/97 HEEA0011448
ROTARY ACTUATOR BINDING.									
HEEA 6710	107X 33113	BELL 412				ACTUATOR ROTARY 214001347005	INOPERATIVE M/R		10/15/97 HEEA0011501
ROTARY ACTUATOR INOPERATIVE.									
HEEA 6710	33008 36004	BELL 412				ACTUATOR ROTARY 214001347005	FAILED M/R CONTROL		10/15/97 HEEA0011513
ROTARY ACTUATOR WILL NOT RELEASE.									
HEEA 6720	2014K 33020	BELL 412				CONTROL ROD 7001482	FAILED T/R		10/10/97 HEEA0011420
NR1 PITCH ADI WON'T MOVE.									
HEEA 7714	108X 33115	BELL 412				INDICATOR 412075010109	INOPERATIVE TRIPLE TACH		10/10/97 HEEA0011426
TRIPLE TACH INSTRUMENT LIGHT INOPERATIVE.									
HEEA 7931	141PH 33197	BELL 412				TRANSMITTER 41800084	DEFECTIVE ENG OIL		10/15/97 HEEA0011507
PRESSURE READINGS LOW 10-15 PSI AT MID RANGE READINGS 50-75 PSI RANGE.									
HEEA 2350	3526T S610	BOLKMS BO105S			251H	AUDIO PANEL 6223101001	FAIL TEST COCKPIT		10/10/97 HEEA0011451
AUDIO PANEL FAILED TEST AND ALIGNMENT PROCEDURES STEP 5.5.3.1.3 AFTER SEVERAL MINUTES OF OPERATION.									
HEEA 2822	86CH S557	BOLKMS BO105S				CARTRIDGE 2C273	DEFECTIVE FUEL PUMP		10/10/97 HEEA0011437
PUMP RUNS INTERMITTENTLY.									
HEEA 2842	721MB S752	BOLKMS BO105S				TRANSMITTER VT044	MALFUNCTION FUEL QTY		10/10/97 HEEA0011432
TRANSMITS HIGH OUT OF TOLERANCE.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 3454	205UC S668	BOLKMS BO105S			KING KI229	INDICATOR 066303800	FAILED COCKPIT RMI		10/10/97 HEEA0011425
	RMI COMPASS CARD DOESN'T MOVE.								
7210	105RH S55	BOLKMS BO105C	ALLSN 250C20B			BEARING	FAILED SPARE DRIVE		10/13/97 97ZZZX4653
	NR 1 ENGINE CHIP LIGHT CAME ON AFTER START-UP. MAINTENANCE FOUND PASTE ON UPPER AND LOWER CHIP PLUGS. CLEANED PLUGS, OIL SAMPLE WAS TAKEN; 1.2 HOURS LATER, NR 1 ENGINE CHIP LIGHT CAME ON AGAIN. MAINTENANCE REMOVED PLUGS. UPPER PLUG HAD CHIPS AND SLIVER. LOWER PLUG HAD PASTE AND CHIPS. ENGINE WAS REMOVED FROM SERVICE AND SENT TO ENGINE SHOP. ENGINE SHOP FOUND ENGINE GEARBOX SPARE DRIVE BEARING CAGE CAME LOOSE AND WAS RATTILING AROUND IN GEARBOX. TIME SINCE LAST INSPECTION, 90.1 HRS. OIL SAMPLE FROM LAST 100-HR INSP SHOWED NO ABNORMAL METALS.								
HEEA 7250	50293 S677	BOLKMS BO105S	ALLSN 250C20B			N1 COUPLING 6898735 6898977	WEAR TURBINE	556	10/14/97 HEEA0011460
	ENGINE REMOVED DUE TO IMPELLER CYCLES; TURBINE DISASSEMBLED DUE TO N1 DRAG ON TEST CELL. UPON INSPECTION OF TURBINE PARTS NOTED: SPLINE WEAR BEYOND SERVICEABLE LIMITS ON N1 COUPLING SPLINE (FAILED NO GO GAUGE) INSTALLED A NEW N1 COUPLING.								
HEEA 7412	5421E S806	BOLKMS BO105S	ALLSN 250C20B			IGNITER BOX 106149501	DEFECTIVE ENGINE		10/10/97 HEEA0011458
	IGNITER BOX THREADS ON IGNITER LEAD CONNECTOR CROSS THREADED.								
HEEA 7712	91070 S145	BOLKMS BO105S				TORQUEMETER DK504	MALFUNCTION COCKPIT		10/15/97 HEEA0011524
	DUAL TORQUE METER RANGE MARKING PAINT FLAKING. NR1 TORQUE NEEDLE BOUNCES DURING FLIGHT.								
HEEA 7921		BOLKMS BO105S				OIL COOLER 37010200004	DEFECTIVE ENG OIL		10/10/97 HEEA0011435
	OIL COOLER FITTING RECEIVED STRIPPED OUT.								
HEEA 3421	134AE 7237	BOLKMS BK117B2				GYRO 4021541671	MALFUNCTION COCKPIT HORIZ		10/10/97 HEEA0011429
	ARTIFICAL GYRO +5 TO 10 DEGREE CONSTANT LEFT BANK.								
HEEA 3421	134AE 7237	BOLKMS BK117B2				GYRO 4021541671	MALFUNCTION COCKPIT HORIZON		10/10/97 HEEA0011428
	HORIZON GYRO FRONT GLASS FOGGED, SLOW OPERATION.								
R7MA 6210	911BY 7127	BOLKMS BK117A4				BLADE 117150051	CRACKED M/R	5687 1451	7/15/97 97ZZZX4658
	M/R BLADE FAILED BLADE INSPECTION. EXCESSIVE SKIN BULGING AND CRACKS.								
R7MA 6210	911BY 7127	BOLKMS BK117A4				BLADE 117150051	CRACKED M/R	5687 1451	7/15/97 97ZZZX4657
	M/R BLADE FAILED BLADE INSPECTION. EXCESSIVE SKIN BULGING AND CRACKS.								
HEEA 6420	911TL 7198	BOLKMS BK117B1				HUB 1053172901	WORN T/R		10/10/97 HEEA0011449
	HUB BEARING SEAT WORN.								

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 7714	217UC 7152	BOLKMS BK117B1				INDICATOR 1179405603	INOPERATIVE N1 RPM		10/10/97 HEEA0011436
INDICATOR INOPERATIVE.									
HEEA 6310	102LU S1548	HUGHES 269C				IDLER PULLEY 269A5582	GROOVED M/R DRIVE		10/10/97 HEEA0011454
IDLER PULLEY GROOVED BEARING SHAFT.									
HEEA 2210	5128 760181	SKRSKY S76A				AMPLIFIER 7611133	FAILED ROLL SLICE		10/15/97 HEEA0011521
ROLL SLICE AMP RETURNS TO CENTER.									
HEEA 7714	707AE 760276	SKRSKY S76A				TACHOMETER 7645001076101	INOPERATIVE GAS GENERATOR		10/10/97 HEEA0011430
ANALOG AND DIGITAL SEGMENTS INOPERATIVE.									
HEEA 7810	707AE 760276	SKRSKY S76A				EJECTOR 7630507003043	CRACKED EXHAUST		10/15/97 HEEA0011508
EJECTOR HAS EXCESSIVE CRACKING.									
HEEA 2912	350BZ 2653	SNIAS AS350B2				ELEMENT 157152	DEFECTIVE HYD FILTER		10/14/97 HEEA0011468
AIRCRAFT HAD A HYDRAULIC FAILURE.									
HEEA 2913	350BZ 2653	SNIAS AS350B2				PUMP 704A34310006	FAILED HYD	2532	10/14/97 HEEA0011471
HYD PUMP FAILED.									
HEEA 2913	6100R 2862	SNIAS AS350B2				PUMP 704A34310006	FAILED HYD	3228	10/14/97 HEEA0011469
HYD. LIGHT AND HORN COMES ON FOR 30 SECONDS IN FLIGHT. PUMP FAILED.									
HEEA 2932	6100R 2862	SNIAS AS350B2				SWITCH MA12401	DEFECTIVE HYD PRESS	1347	10/14/97 HEEA0011473
HYD. SYSTEM WILL NOT TEST. PRESSURE SWITCH DEFECTIVE.									
HEEA 6220	6095S 2777	SNIAS AS350B2				STARFLEX 117775P	WORN M/R	471	10/14/97 HEEA0011492
STARFLEX BALL JOINT WORN BEYOND LIMITS.									
HEEA 6320	6097Z 2820	SNIAS AS350B2				EXPANSION PIN SL100153B	WORN M/R GR BOX	3363	10/14/97 HEEA0011499
EXPANSION PIN WEAR ON BUSHINGS.									
HEEA 6330	350BZ 2653	SNIAS AS350B2				BEARING 704A33633109	WORN M/R XMSN	1708	10/14/97 HEEA0011465
SPHERICAL BEARING WORN. SERIAL NUMBERS REMOVED ARE 7568, 7543, AND 7529.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 6420	6095S 2777	SNIAS AS350B2				ROD 350A33214501	WORN PITCH CONTROL		10/14/97 HEEA0011490
PITCH CONTROL ROD WORN. SERIAL NUMBERS REMOVED ARE PMA2760 AND PMA131.									
HEEA 6420	6097Z 2820	SNIAS AS350B2				ROD 350A33214501	WORN T/R	674	10/14/97 HEEA0011497
BEARINGS EXHIBIT PLAY.									
HEEA 6520	350BZ 2653	SNIAS AS350B2				BEARING 350A33215300	SEPARATED T/R GR BOX	55	10/14/97 HEEA0011482
T/R GR BOX BEARING SEPARATED.									
HEEA 6520	6097Z 2820	SNIAS AS350B2				BEARING 350A33215300	SEPARATION T/R GR BOX	455	10/14/97 HEEA0011483
T/R GR BOX BEARING SEPARATION.									
HEEA 6520	6097Z 2820	SNIAS AS350B2				TAIL ROTOR SPIDE 350A33200405	WORN T/R	633	10/14/97 HEEA0011467
T/R SPIDER BEARING WORN.									
HEEA 6520	6100R 2862	SNIAS AS350B2				BEARING 350A33215300	SEPARATION T/R	1016	10/14/97 HEEA0011459
T/R GR BOX BEARING RUBBER SEPARATION.									
HEEA 6520	4000L 2873	SNIAS AS350B2				BEARING 350A33215300	WORN T/R	77	10/14/97 HEEA0011484
T/R GRBOX BEARING WORN.									
HEEA 6520	40466 3004	SNIAS AS350B2				SPIDER 350A33200405	DEFECTIVE T/R	421	10/14/97 HEEA0011495
VIBRATION. T/R SPIDER DEFECTIVE.									
HEEA 6720	60951 2771	SNIAS AS350B2				ROD 350A33214501	WORN T/R	1169	10/14/97 HEEA0011496
PITCH CONTROL ROD .002 AXIAL PLAY.									
HEEA 6720	6097Z 2820	SNIAS AS350B2				LEVER 350A33105803	WORN T/R GR BOX CONT	3363	10/14/97 HEEA0011500
T/R GR BOX LEVER WEAR IN BUSHINGS CENTER BORE.									
HEEA 6730	350BZ 2653	SNIAS AS350B2				SERVO SC50821	LEAKING M/R FRONT CONT	2249	10/14/97 HEEA0011474
FRONT SERVO CONTROL LEAKING.									
HEEA 7714	4000L 2873	SNIAS AS350B2				INDICATOR 614764021	STICKS ENGINE	1166	10/14/97 HEEA0011466
TACH INDICATOR STICKS AT 250 RPM INTERMITTENTLY.									

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES**11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
BSYA 8550	258B TH1141	BEECH 58	CONT IO520CB			TUBE ASSY 9696001117	CHAFED LT ENG FIRE WALL		10/27/97 97ZZZX4667
LEFT ENGINE LOST OIL. ENGINE SHUT DOWN, LANDED IN JOHNSTOWN, PA. FOUND HOLE CHAFED THROUGH UNFEATHERING ACCUMULATOR TUBE ASSY AT FIRE WALL. REMOVED AND REPLACED LINE, SERVICED ENGINE WITH OIL. OPS CHECKED GOOD.									
7210	108FH 2770	BELL 206B	ALLSN 250C20B			GEARBOX CAG37127	LEAKED ENGINE	4702	10/17/97 97ZZZX4656
REMOVED GEARBOX DUE TO TORQUEMETER PISTON PLUG LEAKING OIL AT A RATE OF ONE DRIP EVERY 4 SECONDS.									
GCHA 7320	176PA 53160	BELL 407	ALLSN 250C47B			ADAPTER 40704031601	WORN HMU	244	10/1/97 GCHA0000014
PART IS DIMENSION OVER MAXIMUM. SPLINES WORN. SUSPECT IMPROPER TYPE/LACK OF LUBRICATION FROM FACTORY. REMOVED AND REPLACED ADAPTER AND SHAFTING, BEARINGS AND RETAINING WASHERS REPLACED. CYCLES: 215. (X)									
8520	5010V 755351	BOEING E75	CONT W6706N			BEARING 20428	FAILED REAR MAIN		9/1/97 97ZZZX4633
THIS ENGINE HAD 385 HOURS SINCE OVERHAUL. THE PILOT NOTED A DROP IN OIL PRESSURE HEADED FOR THE NEAREST AIRPORT 8 MILES AWAY. BEFORE REACHING THE AIRPORT, ELECTED TO MAKE AN EMERGENCY LANDING ON A ROAD. AFTER CHECKING THE SUMP SCREEN, A LARGE QUANTITY OF METAL WAS FOUND. TEAR DOWN REVEALED THE REAR MAIN BEARING HAD FAILED.									
7210	105RH S55	BOLKMS BO105C	ALLSN 250C20B			BEARING	FAILED SPARE DRIVE		10/13/97 97ZZZX4653
NR 1 ENGINE CHIP LIGHT CAME ON AFTER START-UP. MAINTENANCE FOUND PASTE ON UPPER AND LOWER CHIP PLUGS. CLEANED PLUGS, OIL SAMPLE WAS TAKEN; 1.2 HOURS LATER, NR 1 ENGINE CHIP LIGHT CAME ON AGAIN. MAINTENANCE REMOVED PLUGS. UPPER PLUG HAD CHIPS AND SLIVER. LOWER PLUG HAD PASTE AND CHIPS. ENGINE WAS REMOVED FROM SERVICE AND SENT TO ENGINE SHOP. ENGINE SHOP FOUND ENGINE GEARBOX SPARE DRIVE BEARING CAGE CAME LOOSE AND WAS RATTLING AROUND IN GEARBOX. TIME SINCE LAST INSPECTION, 90.1 HRS. OIL SAMPLE FROM LAST 100-HR INSP SHOWED NO ABNORMAL METALS.									
HEEA 7250	50293 S677	BOLKMS BO105S	ALLSN 250C20B		6898735	N1 COUPLING 6898977	WEAR TURBINE	556	10/14/97 HEEA0011460
ENGINE REMOVED DUE TO IMPELLER CYCLES: TURBINE DISASSEMBLED DUE TO N1 DRAG ON TEST CELL. UPON INSPECTION OF TURBINE PARTS NOTED: SPLINE WEAR BEYOND SERVICEABLE LIMITS ON N1 COUPLING SPLINE (FAILED NO GO GAUGE) INSTALLED A NEW N1 COUPLING.									
HEEA 7412	5421E S806	BOLKMS BO105S	ALLSN 250C20B			IGNITER BOX 106149501	DEFECTIVE ENGINE		10/10/97 HEEA0011458
IGNITER BOX THREADS ON IGNITER LEAD CONNECTOR CROSS THREADED.									
8520	7342K R1722060	CESSNA R172K	CONT IO360K			CRANKCASE	FRACTURED NR 2 CYL BASE	3392 1911	10/2/97 97ZZZX4625
LT CRANKCASE BROKE OFF AT THE TOP SIDE AT THE PERIMETER OF NR 2 CYLINDER BASE. SUSPECT CAUSE, FAILURE OF FWD THROUGH-BOLT NUT OR THREADS OR POSSIBLE INTERNAL FLAW IN CRANKCASE HALF.									
8530	8682U 17252585	CESSNA 172F	CONT O300D			PISTON PIN	FAILED NR 6 CYLINDER	804	10/9/97 97ZZZX4641
OIL SCREEN FULL OF METAL AND COLLAPSED. FOUND PIN PLUG NR 6 CYLINDER FAILED. PIN PLUG IN NR 2 CYLINDER EXPANDED AND LOOSENED. SUBMITTER STATED ALUMINUM PLUGS ARE SWAGED. MAYBE A RELIEF HOLE TO RELIEVE INTERNAL PRESSURE MIGHT BE CONSIDERED TO PREVENT EXCESSIVE WEAR.									

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530	97090	CESSNA	CONT			VALVE	WORN	1062	10/23/97
*****	18266974	182Q	O470U			646286	CYL 1-2-5 EXH		97ZZZX4669
INSPECTION FOUND THE NITRALOY GUIDES WORE THE EX VALVE STEMS LEAVING STEPS IN THE STEM AT THE ENDS OF TRAVEL IN THE GUIDE. ONE VALVE HAD .070 INCH WEAR. SUBMITTER STATED CONTINENTAL SHOULD ISSUE A BULLETIN OR SERVICE LETTER ALERTING MECHANICS OF THIS PROBLEM.									
7414	6961L	CESSNA	CONT		BENDIX	MAGNETO	DEFECTIVE		10/7/97
	310K0061	310K	IO470V		S6RN205	101630601	ENGINE		97ZZZX4637
DURING ANNUAL INSPECTION, NO RECORDS EXIST OF ANY MAGNETO MAINTENANCE. ALL 4 MAGS REMOVED FOR TCM 500-HOUR CHECK. THIS MAG HAD POINTS IN CONFIGURATION OF COUNTERCLOCKWISE ROTATION, SHOULD HAVE BEEN FOR CW BY P/N AND IPB. TWO MAGS HAD LOOSE BEARINGS, ALL 4 HAD WORN DISTRIBUTOR BLOCKS. THREE SETS HAD BURNED POINTS, BAD CONDENSER, 2 COILS WITH CRACKS. BOTH ENGINES WERE 'MAJOR OVERHAULED' 162.1 HRS AND 369.4 HRS, ENGINE ONLY. NEITHER HAD ACCESSORIES, FUEL SYSTEM, ETC., OVERHAULED WITH THE 'MAJORS'.									
FSER	567JS	CESSNA	CONT			CYLINDER	CRACKED		10/20/97
8530	402B1090	402B	TSIO520E			635448CN	NR 6	427	97ZZZX4636
DURING FLIGHT FROM EWR TO PWM, THE PILOT EXPERIENCED THE LEFT ENGINE FAILURE. ENGINE WAS SHUT DOWN. FOUND NR 6 CYLINDER CRACKED AT CYLINDER BASE CAUSING COMPLETE FAILURE. ENGINE COMPLETELY DISASSEMBLED AND INSPECTED.									
7414	1011L	CONAER	LYC		SLICK	GEAR	WORN	184	10/18/97
	254	LA4	O360A1A		4370	M3827	MAG ROTOR		97ZZZX4628
PILOT REPORTED ENGINE RUNNING ROUGH. PERFORMED TROUBLESHOOTING, FOUND RT MAGNETO ROTOR SHAFT AND ROTOR GEAR WORN BEYOND LIMITS. GEAR WAS FOUND LOOSE ON SHAFT. THIS IS THE SECOND SUCH 4300 SERIES TYPE MAGNETO WITH APPROXIMATELY 500 HOURS TT WITH THE SAME PROBLEM.									
7414	1011L	CONAER	LYC		SLICK	SHAFT	WORN	184	10/18/97
	254	LA4	O360A1A		4370	M3048	MAG ROTOR		97ZZZX4627
PILOT REPORTED ENGINE RUNNING ROUGH. PERFORMED TROUBLESHOOTING, FOUND RT MAGNETO ROTOR SHAFT AND ROTOR GEAR WORN BEYOND LIMITS. GEAR WAS FOUND LOOSE ON SHAFT. THIS IS THE SECOND SUCH 4300 SERIES TYPE MAGNETO WITH APPROXIMATELY 500 HOURS TT WITH THE SAME PROBLEM.									
8520	3580H	MOONE	CONT			THROUGH BOLT	BROKEN	1154	10/15/97
	250426	M20K	TSIO360KB			537466	CRANKCASE		97ZZZX4670
DURING AN ANNUAL INSPECTION, THE BOTTOM CRANKCASE THROUGH-BOLT LOCATED BETWEEN NR 1 AND NR 3 CYLINDER POSITION WAS FOUND BACKED OUT FROM THE CASE ALMOST TO THE POINT OF FALLING OUT OF ITS MOUNTING HOLE BY APPROXIMATELY 1.1250 INCHES. WHEN BOLT WAS REMOVED, FOUND THE OTHER END AT THE THREADED PORTION MISSING FROM BEING BROKEN OFF. NO OIL LEAK WAS PRESENT. NO OTHER CASE BOLTS OR CYLINDER STUDS WERE AFFECTED FROM THIS OCCURRENCE.									

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS**11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 2211	789DS BB478	BEECH 200BEECH				COMPUTER 4008519916	MALFUNCTION AUTO FLIGHT		10/15/97 HEEA0011515
COMPUTER OSCILLATES IN ROLL.									
HEEA 2312	789DS BB478	BEECH 200BEECH				CONTROL HEAD 10133145100	DEFECTIVE COCKPIT VHF		10/15/97 HEEA0011506
COVER FROM TEST BUTTON MISSING.									
HEEA 2312	45RP 45521	BELL 206L1			KTR993	TRANSMITTER 063100700	INOPERATIVE COCKPIT VHF		10/10/97 HEEA0011434
TRANSMITTER INOPERATIVE.									
HEEA 3120	42EA 51542	BELL 206L3				CLOCK 206070275005	BROKEN COCKPIT		10/10/97 HEEA0011439
SET KNOB BROKEN OFF.									
HEEA 3416	2275Y 3626	BELL 206B3			ACK	ENCODER A30	FAILED COCKPIT ALTITUDE		10/10/97 HEEA0011438
ENCODER DOES NOT HOLD CALIBRATION. CALIBRATE TO 28VDC NOT 12VDC.									
HEEA 3416	21240 45647	BELL 206L1				BARO ANEROID D120P2T	LEAK COCKPIT		10/15/97 HEEA0011520
BAROMETRIC ANEROID EXCESSIVE CASE LEAKAGE.									
HEEA 3421	6610E 51424	BELL 206L3				ATTITUDE GYRO 206075607103	FAULTY COCKPIT		10/10/97 HEEA0011447
ATTITUDE GYRO WILL NOT STAY CAGED.									
HEEA 2211	2014K 33020	BELL 412				COMPUTER 4025008918	FAILS TEST AFCS		10/15/97 HEEA0011516
AFCS COMPUTER FAILS 31.2 AND FOLLOWING TEST ON SST.									
HEEA 3421	7128R 36007	BELL 412				INDICATOR 1113034	MALFUNCTION COCKPIT ATTITUDE		10/10/97 HEEA0011423
ATTITUDE INDICATOR ROLLS LEFT 10 TO 30 DEGREES.									
HEEA 3431	1202T 33112	BELL 412			VIR32	RECEIVER 6226137001	INOPERATIVE COCKPIT LOC		10/10/97 HEEA0011427
LOCALIZER INOPERATIVE.									
HEEA 3444	5759N 33002	BELL 412			RT220	ALTIMETER 4004437901	INOPERATIVE RADAR ALTIMETER		10/15/97 HEEA0011518
ALTIMETER INOPERATIVE.									
HEEA 2350	3526T S610	BOLKMS BO105S			251H	AUDIO PANEL 6223101001	FAIL TEST COCKPIT		10/10/97 HEEA0011451
AUDIO PANEL FAILED TEST AND ALIGNMENT PROCEDURES STEP 5.5.3.1.3 AFTER SEVERAL MINUTES OF OPERATION.									

***** DENOTES SIGNIFICANT OCCURRENCE

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS (cont'd)

11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
HEEA 3454	205UC S668	BOLKMS BO105S			KING KI229	INDICATOR 066303800	FAILED COCKPIT RMI		10/10/97 HEEA0011425
RMI COMPASS CARD DOESN'T MOVE.									
HEEA 3421	134AE 7237	BOLKMS BK117B2				GYRO 4021541671	MALFUNCTION COCKPIT HORIZ		10/10/97 HEEA0011429
ARTIFICAL GYRO +5 TO 10 DEGREE CONSTANT LEFT BANK.									
HEEA 3421	134AE 7237	BOLKMS BK117B2				GYRO 4021541671	MALFUNCTION COCKPIT HORIZON		10/10/97 HEEA0011428
HORIZON GYRO FRONT GLASS FOGGED, SLOW OPERATION.									
HEEA 2210	5128 760181	SKRSKY S76A				AMPLIFIER 7611133	FAILED ROLL SLICE		10/15/97 HEEA0011521
ROLL SLICE AMP RETURNS TO CENTER.									

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

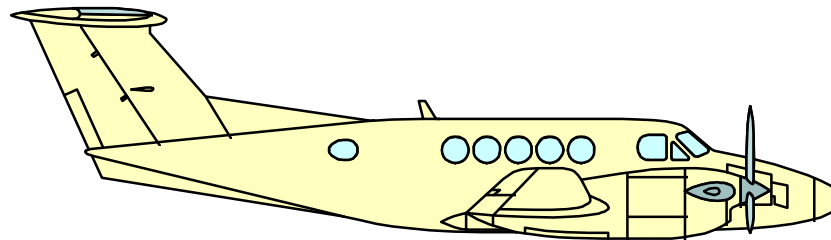
DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6114	53945	CESSNA		MCAULY		SPACER	CRACKED	3096	10/16/97
	17274832	172		1C160DTM		D4521	PROPELLER		97ZZZX4635
	SPACER ON PROPELLER FOUND CRACKED THROUGH N.D.T. INSPECTION. FOUND AT 100-HOUR INSPECTION, A PROPELLER RE-PROFILING.								
DKBA	761VX	CESSNA		MCAULY		LINK	BROKEN		9/13/97
6111	21062563	210M		D3A34C404		A4577	BLADE ACTUATE	1439	97ZZZX4651
*****	DURING A DISASSEMBLY INSPECTION OF PROPELLER LINK, THE BLADE ACTUATING ON THE NR 2 BLADE WAS BROKEN AT THE .4375 INCH BLADE BUTT ATTACH POINT AND THE CHROME PLATING ON THE BLADE PITCH FITTING WAS DETERIORATED AND SHOWED EXTENSIVE PITTING. SUSPECT POSSIBLE FAILURE TO REPLACE OR REWORK COMPONENTS DURING OVERHAUL. PHOTOS AVAILABLE UPON REQUEST.								
(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)									



INTERNATIONAL SERVICE DIFFICULTY REPORT



INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT

11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8011		CESSNA				STARTER	WORN	666	8/5/97
		A185E				635050A4	CLUTCH		CA970812014
	(CAN) OIL PRESSURE DROPPED IN FLIGHT. THE AIRCRAFT LANDED WITHOUT DIFFICULTY. POST FLIGHT INSPECTION FOUND METAL IN THE OIL FILTER. INVESTIGATION FOUND THE STARTER CLUTCH WAS WORN. THE ENGINE WAS REPAIRED.								
2120		CESSNA	PWA			ARM ASSEMBLY	BENT	2410	8/14/97
		550	JT15D4			551511870	STRIKER		CA970820016
	(CAN) DURING A PHASE 5 INSPECTION, THE ARM WAS FOUND DRIVEN HARD AGAINST THE CABIN VENTILATION JUNCTION BOX AND THE MICROSWITCH STRIKER ARM WAS BENT AND FOLDED AGAINST THE JUNCTION BOX. THE MOTOR DRIVING THE ARM AND VALVE ASSEMBLY HAD FAILED DUE TO OVERHEATING. IT APPEARS THAT THE MICROSWITCH STRIKER HAD BENT ENOUGH TO MISS THE CUTOFF MICROSWITCH AND CONTINUED TO RUN UNTIL THE ARM HIT THE JUNCTION BOX. THE STALLED MOTOR THEN OVERHEATED TO FAILURE.								
5330		CESSNA	PWA			SKIN	CRACKED	2410	8/13/97
		550	JT15D4			55120106	FS 456.5		CA970820015
	(CAN) WHILE REPLACING DORSAL FIN PER SB 550-53-24, A 2" CRACK WAS FOUND IN THE R/H SKIN ABOUT HALF WAY BETWEEN THE FRESH AIR DUCT FLANGE AND THE FRAME AT FS456.50 TRAVELLING CIRCUMFERENTIALLY FROM THE TOP EDGE TOWARDS THE R/H SIDE. AREA IS BEING REPAIRED BY INSERTING A PATCH AND OVERLYING A DOUBLER. ASSB 856-0047 REPAIR TO FUSELAGE SKIN UNDER DORSAL FIN AT FS 456.50.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7714		BELL	ALLSN			DUAL TACH	FROZEN		8/5/94
		206L	250C20			2060702651	INSTRUMENT PANEL		CA940823023
	(CAN) AT FIRST START UP OF THE DAY OR AFTER PARKED IN THE COLD, THE DUAL TACHOMETER WOULD STICK AT 90% FOR 20 MINUTES THEN SLOWLY INCREASE TO 100% EVEN THOUGH AIRCRAFT RPM WAS ALWAYS 100%.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES

11/2/97 - 11/8/97 ISSUE: 97-45 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		BEECH	PWA			CYLINDER	SEPARATED		8/3/97
		3NM	R985AN14B				NR1 POSITION	28	CA970815010
	(CAN) AIRCRAFT DEVELOPED ROUGH RUNNING ON NR1 ENGINE IN CRUISE. ALL ENGINE PARAMETERS WERE NORMAL. POST FLIGHT INSPECTION FOUND THE NR1 CYLINDER SEPARATED AT THE BARREL/HEAD.								
8520		PIPER	LYC			CRANKSHAFT	BROKEN		8/13/97
		PA31	TIO540A2C			13F17776	THROW AREA	1502	CA970820007
	(CAN) ENGINE FAILED IN FLIGHT. REPORT FROM OVERHAUL FACILITY DETERMINED THE CRANKSHAFT FAILED IN TWO (2) PLACES. THE SEPARATION OCCURRED IN THE THROW AREA (NOT THE MAIN BEARING JOURNAL). THE SUSPECTED CAUSE TO BE EITHER FATIGUE OR POSSIBLE OVERBOOST/PROP STRIKE SINCE LAST OVERHAUL.								
7314		PIPER	LYC			FUEL PUMP	RUPTURED		8/15/97
		PA46350P	TIO540AE2A			RG908014A	DIAPHRAGM		CA970820012
	(CAN) FUEL PUMP DIAPHRAGM RUPTURED CAUSING FUEL TO LEAK ON THE UPPER DECK. LYCOMING SB #487 REFERS.								
(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)									

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3460		CESSNA	PWA			V-NAV CONTROLLER	FAULTY	5560	8/1/97
		550	JT15D4			4020571904	INSTRUMENT PANEL		CA970815016
	(CAN) V-NAV SELECTOR SWITCH MOVED INADVERTENTLY BETWEEN POSITIONS DUE TO WORN SWITCH. THIS DISABLED THE ALTITUDE ALERTER AND AIRCRAFT DESCENDED BELOW ASSIGNED ALTITUDE. SWITCH HAS BEEN SAFETIED IN ALERTER POSITION UNTIL PARTS ARE AVAILABLE. PLACARD INSTALLED IN COCKPIT TO PROVIDE WARNING OF V-NAV INOPERATIVE STATUS.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

ATA	REG. NO	ACFT MAKE	ENG MAKE	PROP MAKE	COMP MFG	PART NAME	PART COND	TT	DIFF. DATE
OPER	SERIAL NO	ACFT MODEL	ENG MDL	PROP MDL	COMP MDL	PART NUMBER	PART LOC.	TSO	OPER CONT NO

(There was no data for this report.)

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)



U.S. Department
of Transportation
**Federal Aviation
Administration**

SERVICE DIFFICULTY REPORT SUMMARY

GENERAL AVIATION - INDEX



The following information provides a tally of the Service Difficulty Reports (SDR's) contained in this weeks issue of the General Aviation SDR Summary. The totals represent only a summation of the SDR's that were submitted to the FAA, Aviation Data Systems Branch, AFS-620, and processed in time for inclusion in the Summary. The first table is a tally of the number of SDR's submitted through the indicated Flight Standards District Office (FSDO). The second table sorts the SDR's by the aircraft or equipment make and model. The heading at the top of each table provides a two digit Joint Aircraft System/Component (JASC) code grouping (e.g., JASC codes 1100 thru 1800 are represented by the heading labeled 11-18) which categorizes in general, the problem areas for each reported discrepancy.

The Flight Standards Service Difficulty Program objective is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products. This is accomplished by the collection of Service Difficulty and Malfunction or Defect Reports. SDR's are consolidation and collation into common data base where they are analyzed for trends, problems, and alert information. This information is then disseminated to the appropriate segments of the aviation community and to other FAA offices.

The number of SDR's submitted is not an indicator of the mechanical reliability or fitness of an air carrier's aircraft fleet and should not be used as such. The air carriers certificate holding office has the primary responsibility for planning, programming evaluations, and assessing the performance of operators. Questions regarding an air carrier's fleet performance should be directed to the appropriate Flight Standards District Office, Certificate Management Office, or Certificate Management Unit.

GENERAL AVIATION SUMMARY INDEX BY DISTRICT OFFICE**11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327**

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
AL 03	0	0	0	0	1	0	0	0	1
CA	0	1	1	0	1	0	2	3	8
EA 03	0	1	0	0	0	1	0	0	2
EA 21	0	0	0	0	0	0	1	0	1
EA 25	0	1	0	0	0	0	0	0	1
EU 01	0	0	1	0	0	0	0	0	1
GL 07	0	0	1	0	1	0	0	1	3
GL 13	0	0	0	0	1	0	1	0	2
GL 17	0	0	1	0	0	0	0	0	1
GL 23	0	0	1	0	0	0	0	0	1
NE 01	1	0	0	0	0	0	0	0	1
NE 03	0	1	1	0	0	0	0	0	2
NE 05	0	1	0	0	3	0	1	1	6
NM 03	0	0	0	0	0	0	1	0	1
NM 09	0	1	4	0	0	0	0	0	5
NM 11	0	0	0	0	0	3	0	1	4
SO 03	0	0	1	0	0	0	0	1	2
SO 09	0	0	0	0	0	1	0	0	1
SO 15	0	2	0	0	0	0	0	0	2
SW 01	0	0	0	0	0	0	0	1	1
SW 03	0	21	17	0	9	41	12	0	100
SW 09	0	0	0	0	0	0	1	0	1
SW 99	0	1	1	0	0	0	3	2	7
WP 01	0	1	0	0	0	0	0	0	1
WP 07	0	0	1	0	0	2	0	0	3
WP 19	0	0	0	0	0	0	2	0	2

DISTRICT OFFICE	11-18	21-29	SDR TOTALS BY FAA ATA SYSTEM CHAPTER				71-79	80-85	TOTAL
			30-38	45-49	51-57	61-67			
WP 25	0	0	0	0	0	0	0	1	1
TOTALS	1	31	30	0	16	48	24	11	161

(End of GENERAL AVIATION SUMMARY INDEX by DISTRICT OFFICE Report)

GENERAL AVIATION SUMMARY INDEX by MANUFACTURER MAKE and MODEL**11/2/97 To 11/8/97 ISSUE: 97-45 ZAC-327**

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
BBAVIA	8GCBC	1	0	0	0	0	0	0	0	1
BEECH	200BEECH	0	2	0	0	0	0	0	0	2
BEECH	3NM	0	0	0	0	0	0	0	1	1
BEECH	58	0	0	1	0	1	0	0	1	3
BEECH	B36TC	0	0	0	0	0	0	0	1	1
BEECH	C23	0	0	2	0	0	0	0	0	2
BEECH	F33A	0	1	0	0	0	0	0	0	1
BELL	206B	0	0	0	0	0	0	1	0	1
BELL	206B3	0	0	1	0	0	1	0	0	2
BELL	206L	0	0	0	0	0	0	1	0	1
BELL	206L1	0	1	1	0	0	4	0	0	6
BELL	206L1	0	0	0	0	0	1	0	0	1
BELL	206L3	0	1	2	0	2	3	0	0	8
BELL	212	0	0	0	0	0	1	0	0	1
BELL	214ST	0	3	3	0	0	1	0	0	7
BELL	222	0	0	0	0	0	1	0	0	1
BELL	230	0	1	0	0	0	4	0	0	5
BELL	407	0	3	1	0	0	7	4	0	15
BELL	407	0	1	0	0	0	0	0	0	1
BELL	412	0	2	6	0	7	4	2	0	21
BOEING	E75	0	0	0	0	0	0	0	1	1
BOLKMS	BK117A4	0	0	0	0	0	2	0	0	2
BOLKMS	BK117B1	0	0	0	0	0	1	1	0	2
BOLKMS	BK117B2	0	0	2	0	0	0	0	0	2
BOLKMS	BO105C	0	0	0	0	0	0	1	0	1
BOLKMS	BO105S	0	3	1	0	0	0	4	0	8
CESSNA	150M	0	1	0	0	0	0	0	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
CESSNA	172	0	0	0	0	0	1	0	0	1
CESSNA	172F	0	0	0	0	0	0	0	1	1
CESSNA	182Q	0	0	0	0	0	0	0	1	1
CESSNA	208	0	0	0	0	1	0	0	0	1
CESSNA	210M	0	0	0	0	0	1	0	0	1
CESSNA	310K	0	0	0	0	0	0	1	0	1
CESSNA	310R	0	2	0	0	0	0	0	0	2
CESSNA	402B	0	0	0	0	0	0	0	1	1
CESSNA	414	0	0	1	0	0	0	0	0	1
CESSNA	414A	0	0	0	0	0	0	1	0	1
CESSNA	421C	0	0	1	0	0	0	0	0	1
CESSNA	500CESSNA	0	0	0	0	1	0	0	0	1
CESSNA	550	0	1	1	0	1	0	0	0	3
CESSNA	550	0	0	1	0	0	0	0	0	1
CESSNA	A185E	0	0	0	0	0	0	0	1	1
CESSNA	R172K	0	0	0	0	0	0	0	1	1
CESSNA	T210N	0	0	1	0	0	0	0	0	1
CESSNA	U206F	0	0	0	0	1	0	1	0	2
CONAER	LA4	0	0	0	0	0	0	2	0	2
DHAV	DHC6300	0	0	0	0	0	1	0	0	1
HUGHES	269C	0	0	0	0	0	1	0	0	1
MOONEY	M20J	0	1	0	0	0	0	0	0	1
MOONEY	M20K	0	0	0	0	0	0	0	1	1
MTSBSI	MU2B36	0	0	3	0	0	0	0	0	3
PIPER	PA20	0	1	0	0	0	0	0	0	1
PIPER	PA28140	0	1	0	0	0	0	0	0	1
PIPER	PA28R200	0	0	0	0	2	0	0	0	2

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
PIPER	PA31	0	0	0	0	0	0	0	1	1
PIPER	PA31T	0	1	0	0	0	0	0	0	1
PIPER	PA34200	0	0	1	0	0	0	0	0	1
PIPER	PA42	0	0	1	0	0	0	0	0	1
PIPER	PA46350P	0	0	0	0	0	0	1	0	1
SKRSKY	S76A	0	1	0	0	0	0	2	0	3
SNIAS	AS350B2	0	4	0	0	0	14	1	0	19
STBROS	SC7SERIES3	0	0	0	0	0	0	1	0	1
TOTALS		1	31	30	0	16	48	24	11	161

(End of AIR CARRIER SUMMARY INDEX by OPERATOR Report)

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

PREFACE

The Joint Aircraft System/Component (JASC) Code Table is a modified version of the Air Transport Association of America (ATA), Specification 100 code. It was developed by the Federal Aviation Administration's (FAA), Aviation Data Systems Branch (AFS-620). Technical support was provided by the Galaxy Scientific Corporation, and various representatives of the air carrier and general aviation community.

Over the past four years, the JASC format of the ATA Spec 100 code has gained widespread industry acceptance. In a harmonized effort, the FAA's counterparts in Australia and Canada have adopted the JASC code with only a few exceptions. Some Canadian aircraft manufacturers have also recently adopted this new standard.

This code table is constructed by using the new JASC four (4) digit code, along with an abbreviated code title. The abbreviated titles have been modified in some cases to clarify the intended use of the accompanying code. This table can be used as a quick reference chart, to assist in the coding and review of aircraft structures or systems data (i.e., Service Difficulty Report (SDR), Accident/Incident Report).

The current coding scheme used in the JASC code was introduced in May 1991, for the technical classification of SDR's. Its predecessor, the FAA aircraft system/component code, was a similar but more complex eight-digit code which was developed over 25 years ago. It was constructed around the computer technology of that period. It consisted of a four digit numerical code plus a four alpha character code to make data retrieval possible. Since that time, computer technology has advanced many fold. Reducing the code from eight to four characters simplifies coding, and in some cases, makes JASC coding match the ATA Specification 100 first three digits, which are used to identify aircraft systems. The ATA code does not reference the fourth digit, so it is free to be used for identifying components.

The JASC code aircraft structural section has increased due to problems inherent with aging aircraft. As an example, FAA code 5301 SXBD was expanded to 20 items due to the high rate of reporting in this area (8021 structural reports were received in 1989). In some instances, there was very little reporting and codes were combined into other systems if the safety impact was not significant. The overall reduction in codes has been from 568 FAA codes to 488 JASC codes, with the significant increase being in the structural area as stated earlier.

The JASC code divides the engine section into two major code groups to separate the turbine and reciprocating engines. The codes for the turbine engines are in JASC Chapter 72, Turbine/Turboprop Engine. The codes for the reciprocating engines are now exclusively found in JASC Chapter 85, Reciprocating Engine.

The other major deviation from ATA Spec 100 is in ATA section 2730, specifically involves the stall warning system. Early technology (primarily on smaller aircraft) directly linked the sensing of flight attitude to one of the components which furnished the means of manually controlling the flight attitude characteristics (elevator). Today, most large transport category aircraft utilize electronic units to sense the change in the environmental condition called stall, and use the data to influence navigation. ATA section 3410, Flight Environment Data, includes high speed warning in its code definition. Stall warning (low speed) is the reciprocal term of high speed warning, so its filing under the same code appears more logical. Thus, with the JASC code it was decided to move the stall warning system to Chapter 34 under the separate code JASC code 3418, Stall Warning System.

The FAA is continuing to pursue worldwide involvement from operators and manufacturers in addressing the need for international standardization of aircraft system/component codes. The ultimate goal is to develop a universal aircraft/component numbering standard which can be used in the manufacturer's maintenance manual, wiring diagram manual, system manuals and illustrated parts catalog. This harmonized standard must be a usable standard for the aircraft manufacturers, air carrier operators and the general aviation community.

We welcome comments and feedback regarding the possible forming of working groups to achieve this long range consideration of possibly harmonizing the ATA Specification 100 code and the JASC code. Comments may be directed to the FAA, Aviation Data Sytem Branch, AFS-620, P.O. Box 25082, Oklahoma City, OK 73125.

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

JASC/ TITLE

11 PLACARDS AND MARKINGS

1100 PLACARDS AND MARKINGS

12 SERVICING

1210 FUEL SERVICING
1220 OIL SERVICING
1230 HYDRAULIC FLUID SERVICING
1240 COOLANT SERVICING

18 HELICOPTER VIBRATION

1800 HELICOPTER VIB/NOISE ANALYSIS
1810 HELICOPTER VIBRATION ANALYSIS
1820 HELICOPTER NOISE ANALYSIS

21 AIR CONDITIONING

2100 AIR CONDITIONING SYSTEM
2110 CABIN COMPRESSOR SYSTEM
2120 AIR DISTRIBUTION SYSTEM
2121 AIR DISTRIBUTION FAN
2130 CABIN PRESSURE CONTROL SYSTEM
2131 CABIN PRESSURE CONTROLLER
2132 CABIN PRESSURE INDICATOR
2133 PRESSURE REGUL/OUTFLOW VALVE
2134 CABIN PRESSURE SENSOR
2140 HEATING SYSTEM
2150 CABIN COOLING SYSTEM
2160 CABIN TEMPERATURE CONTROL SYSTEM
2161 CABIN TEMPERATURE CONTROLLER
2162 CABIN TEMPERATURE INDICATOR
2163 CABIN TEMPERATURE SENSOR
2170 HUMIDITY CONTROL SYSTEM

22 AUTO FLIGHT

2200 AUTO FLIGHT SYSTEM
2210 AUTOPILOT SYSTEM
2211 AUTOPILOT COMPUTER
2212 ALTITUDE CONTROLLER
2213 FLIGHT CONTROLLER
2214 AUTOPILOT TRIM INDICATOR
2215 AUTOPILOT MAIN SERVO
2216 AUTOPILOT TRIM SERVO
2220 SPEED-ATTITUDE CORRECT. SYSTEM
2230 AUTO THROTTLE SYSTEM
2250 AERODYNAMIC LOAD ALLEVIATING

23 COMMUNICATIONS

2300 COMMUNICATIONS SYSTEM
2310 HF COMMUNICATION SYSTEM
2311 UHF COMMUNICATION SYSTEM
2312 VHF COMMUNICATION SYSTEM
2320 DATA TRANSMISSION AUTO CALL
2330 ENTERTAINMENT SYSTEM
2340 INTERPHONE & PA SYSTEM
2350 AUDIO INTEGRATING SYSTEM
2360 STATIC DISCHARGE SYSTEM
2370 AUDIO/VIDEO MONITORING

24 ELECTRICAL POWER

2400 ELECTRICAL POWER SYSTEM
2410 ALTERNATOR-GENERATOR DRIVE
2420 AC GENERATION SYSTEM
2421 AC GENERATOR-ALTERNATOR
2422 AC INVERTER
2423 PHASE ADAPTER

24 ELECTRICAL POWER CONT'D

2424 AC REGULATOR
2425 AC INDICATING SYSTEM
2430 DC GENERATING SYSTEM
2431 BATTERY OVERHEAT WARN. SYSTEM
2432 BATTERY/CHARGER SYSTEM
2433 DC RECTIFIER-CONVERTER
2434 DC GENERATOR-ALTERNATOR
2435 STARTER-GENERATOR
2436 DC REGULATOR
2437 DC INDICATING SYSTEM
2440 EXTERNAL POWER SYSTEM
2450 AC POWER DISTRIBUTION SYSTEM
2460 DC POWER/DISTRIBUTION SYSTEM

25 EQUIPMENT/FURNISHINGS

2500 CABIN EQUIPMENT/FURNISHINGS
2510 FLIGHT COMPARTMENT EQUIPMENT
2520 PASSENGER COMPARTMENT EQUIPMENT
2530 BUFFET/GALLEYS
2540 LAVATORIES
2550 CARGO COMPARTMENTS
2551 AGRICULTURAL SPRAY SYSTEM
2560 EMERGENCY EQUIPMENT
2561 LIFE JACKET
2562 EMERGENCY LOCATOR BEACON
2563 PARACHUTE
2564 LIFE RAFT
2565 ESCAPE SLIDE
2570 ACCESSORY COMPARTMENT
2571 BATTERY BOX STRUCTURE
2572 ELECTRONIC SHELF SECTION

26 FIRE PROTECTION

2600 FIRE PROTECTION SYSTEM
2610 DETECTION SYSTEM
2611 SMOKE DETECTION
2612 FIRE DETECTION
2613 OVERHEAT DETECTION
2620 EXTINGUISHING SYSTEM
2621 FIRE BOTTLE, FIXED
2622 FIRE BOTTLE, PORTABLE

27 FLIGHT CONTROLS

2700 FLIGHT CONTROL SYSTEM
2701 CONTROL COLUMN SECTION
2710 AILERON CONTROL SYSTEM
2711 AILERON TAB CONTROL SYSTEM
2720 RUDDER CONTROL SYSTEM
2721 RUDDER TAB CONTROL SYSTEM
2722 RUDDER ACTUATOR
2730 ELEVATOR CONTROL SYSTEM
2731 ELEVATOR TAB CONTROL SYSTEM
2740 STABILIZER CONTROL SYSTEM
2741 STABILIZER POSITION INDICATING
2742 STABILIZER ACTUATOR
2750 TE FLAP CONTROL SYSTEM
2751 TE FLAP POSITION IND. SYSTEM
2752 TE FLAP ACTUATOR
2760 DRAG CONTROL SYSTEM
2761 DRAG CONTROL ACTUATOR
2770 GUST LOCK/DAMPER SYSTEM
2780 LE FLAP CONTROL SYSTEM
2781 LE FLAP POSITION IND. SYSTEM
2782 LE FLAP ACTUATOR

28 FUEL

2800 AIRCRAFT FUEL SYSTEM
2810 FUEL STORAGE
2820 ACFT FUEL DISTRIB. SYSTEM
2821 ACFT FUEL FILTER/STRAINER
2822 FUEL BOOST PUMP
2823 FUEL SELECTOR/SHUTOFF VALVE
2824 FUEL TRANSFER VALVE
2830 FUEL DUMP SYSTEM
2840 ACFT FUEL INDICATING
2841 FUEL QUANTITY INDICATOR
2842 FUEL QUANTITY SENSOR
2843 FUEL TEMPERATURE INDICATING
2844 FUEL PRESSURE INDICATOR

29 HYDRAULIC POWER

2900 HYDRAULIC POWER SYSTEM
2910 HYDRAULIC, MAIN SYSTEM
2911 HYDRAULIC POWER-ACCUMULATOR-MAIN
2912 HYDRAULIC FILTER-MAIN SYSTEM
2913 HYDRAULIC PUMP. ELECT-ENG.-MAIN
2914 HYDRAULIC HANDPUMP-MAIN
2915 HYDRAULIC PRESSURE RELIEF VLV-MAIN
2916 HYDRAULIC RESERVOIR-MAIN
2917 HYDRAULIC PRESSURE REGULATOR-MAIN
2920 HYDRAULIC, AUXILIARY SYSTEM
2921 HYDRAULIC ACCUMULATOR-AUXILIARY
2922 HYDRAULIC FILTER-AUXILIARY
2923 HYDRAULIC PUMP-AUXILIARY
2925 HYDRAULIC PRESSURE RELIEF-AUXILIARY
2926 HYDRAULIC RESERVOIR-AUXILIARY
2927 HYDRAULIC PRESSURE REGULATOR-AUX.
2930 HYDRAULIC SYSTEM INDICATING
2931 HYDRAULIC PRESSURE INDICATOR
2932 HYDRAULIC PRESSURE SENSOR
2933 HYDRAULIC QUANTITY INDICATOR
2934 HYDRAULIC QUANTITY SENSOR

30 ICE AND RAIN PROTECTION

3000 ICE/RAIN PROTECTION SYSTEM
3010 AIRFOIL ANTI/DE-ICE SYSTEM
3020 AIR INTAKE ANTI/DE-ICE SYSTEM
3030 PITOT/STATIC ANTI-ICE SYSTEM
3040 WINDSHIELD/DOOR RAIN/ICE REMOVAL
3050 ANTENNA/RADOME ANTI-ICE/DE-ICE SYSTEM
3060 PROP/ROTOR ANTI-ICE/DE-ICE SYSTEM
3070 WATER LINE ANTI-ICE SYSTEM
3080 ICE DETECTION

31 INSTRUMENTS

3100 INDICATING/RECORDING SYSTEM
3110 INSTRUMENT PANEL
3120 INDEPENDENT INSTRUMENTS (CLOCK, ETC.)
3130 DATA RECORDERS (FLT/MAINT)
3140 CENTRAL COMPUTERS (EICAS)
3150 CENTRAL WARNING
3160 CENTRAL DISPLAY
3170 AUTOMATIC DATA

32 LANDING GEAR

3200 LANDING GEAR SYSTEM
3201 LANDING GEAR/WHEEL FAIRING
3210 MAIN LANDING GEAR
3211 MAIN LANDING GEAR ATTACH SECTION
3212 EMERGENCY FLOTATION SECTION
3213 MAIN LANDING GEAR STRUT/AXLE/TRUCK
3220 NOSE/TAIL LANDING GEAR
3221 NOSE/TAIL LANDING GEAR ATTACH SECTION
3222 NOSE/TAIL LANDING GEAR STRUT/AXLE
3230 LANDING GEAR RETRACT/EXT. SYSTEM
3231 LANDING GEAR DOOR RETRACT SECTION
3232 LANDING GEAR DOOR ACTUATOR
3233 LANDING GEAR ACTUATOR
3234 LANDING GEAR SELECTOR
3240 LANDING GEAR BRAKE SYSTEM
3241 BRAKE ANTI-SKID SECTION
3242 BRAKE
3243 MASTER CYL/BRAKE VALVE
3244 TIRE
3245 TIRE TUBE
3246 WHEEL/SKI/FLOAT
3250 LANDING GEAR STEERING SYSTEM
3251 STEERING UNIT
3252 SHIMMY DAMPER
3260 LANDING GEAR POSITION & WARNING
3270 AUXILIARY GEAR (TAIL SKID)

33 LIGHTS

3300 LIGHTING SYSTEM
3310 FLIGHT COMPARTMENT LIGHTING
3320 PASSENGER COMPARTMENT LIGHTING
3330 CARGO COMPARTMENT LIGHTING
3340 EXTERIOR LIGHTING
3350 EMERGENCY LIGHTING

34 NAVIGATION

3400 NAVIGATION SYSTEM
3410 FLIGHT ENVIRONMENT DATA
3411 PITOT/STATIC SYSTEM
3412 OUTSIDE AIR TEMP. IND./SENSOR
3413 RATE OF CLIMB INDICATOR
3414 AIRSPEED/MACH INDICATING
3415 HIGH SPEED WARNING
3416 ALTIMETER, BAROMETRIC/ENCODER

34 NAVIGATION CONT'D

3417 AIR DATA COMPUTER
3418 STALL WARNING SYSTEM
3420 ATTITUDE AND DIRECTION DATA SYSTEM
3421 ATTITUDE GYRO & IND. SYSTEM
3422 DIRECTIONAL GYRO & IND. SYSTEM
3423 MAGNETIC COMPASS
3424 TURN & BANK/RATE OF TURN INDICATOR
3425 INTEGRATED FLT. DIRECTOR SYSTEM
3430 LANDING & TAXI AIDS
3431 LOCALIZER/VOR SYSTEM
3432 GLIDE SLOPE SYSTEM
3433 MICROWAVE LANDING SYSTEM
3434 MARKER BEACON SYSTEM
3435 HEADS UP DISPLAY SYSTEM
3436 WIND SHEAR DETECTION SYSTEM
3440 INDEPENDENT POS. DETERMINING SYSTEM
3441 INERTIAL GUIDANCE SYSTEM
3442 WEATHER RADAR SYSTEM
3443 DOPPLER SYSTEM
3444 GROUND PROXIMITY SYSTEM
3445 AIR COLLISION AVOIDANCE SYSTEM (TCAS)
3446 NON RADAR WEATHER SYSTEM
3450 DEPENDENT POSITION DETERMINING SYSTEM
3451 DME/TACAN SYSTEM
3452 ATC TRANSPONDER SYSTEM
3453 LORAN SYSTEM
3454 VOR SYSTEM
3455 ADF SYSTEM
3456 OMEGA NAVIGATION SYSTEM
3457 GLOBAL POSITIONING SYSTEM
3460 FLIGHT MANAGE. COMPUTING SYSTEM

35 OXYGEN

3500 OXYGEN SYSTEM
3510 CREW OXYGEN SYSTEM
3520 PASSENGER OXYGEN SYSTEM
3530 PORTABLE OXYGEN SYSTEM

36 PNEUMATIC

3600 PNEUMATIC SYSTEM
3610 PNEUMATIC DISTRIBUTION SYSTEM
3620 PNEUMATIC INDICATING SYSTEM

37 VACUUM

3700 VACUUM SYSTEM
3710 VACUUM DISTRIBUTION SYSTEM
3720 VACUUM INDICATING SYSTEM

38 WATER/WASTE

3800 WATER & WASTE SYSTEM
3810 POTABLE WATER SYSTEM
3820 WASH WATER SYSTEM
3830 WASTE DISPOSAL SYSTEM
3840 AIR SUPPLY (WATER PRESS. SYSTEM)

45 CENTRAL MAINT. SYSTEM

4500 CENTRAL MAINT. COMPUTER

49 AIRBORNE AUXILIARY POWER

4900 AIRBORNE APU SYSTEM
4910 APU COWLING/CONTAINMENT
4920 APU CORE ENGINE
4930 APU ENGINE FUEL & CONTROL
4940 APU START/IGNITION SYSTEM
4950 APU BLEED AIR SYSTEM
4960 APU CONTROLS
4970 APU INDICATING SYSTEM
4980 APU EXHAUST SYSTEM
4990 APU OIL SYSTEM

51 STANDARD PRACTICES/STRUCTURES

5100 STANDARD PRACTICES/STRUCTURES
5101 AIRCRAFT STRUCTURES
5102 BALLOON REPORTS

52 DOORS

5200 DOORS
5210 PASSENGER/CREW DOORS
5220 EMERGENCY EXIT
5230 CARGO/BAGGAGE DOORS
5240 SERVICE DOORS
5241 GALLEY DOORS
5242 E/E COMPARTMENT DOORS
5243 HYDRAULIC COMPARTMENT DOORS
5244 ACCESSORY COMPARTMENT DOORS
5245 AIR CONDITIONING COMPART. DOORS
5246 FLUID SERVICE DOORS

5247 APU DOORS
5248 TAIL CONE DOORS
5250 FIXED INNER DOORS
5260 ENTRANCE STAIRS
5270 DOOR WARNING SYSTEM
5280 LANDING GEAR DOORS

53 FUSELAGE

5300 FUSELAGE STRUCTURE (GENERAL)
5301 AERIAL TOW EQUIPMENT
5302 ROTORCRAFT TAIL BOOM
5310 FUSELAGE MAIN STRUCTURE
5311 FUSELAGE MAIN FRAME
5312 FUSELAGE MAIN BULKHEAD
5313 FUSELAGE MAIN LONGERON/STRINGER
5314 FUSELAGE MAIN KEEL
5315 FUSELAGE MAIN FLOOR BEAM
5320 FUSELAGE MISCELLANEOUS STRUCTURE
5321 FUSELAGE FLOOR PANEL
5322 FUSELAGE INTERNAL MOUNT STRUCTURE
5323 FUSELAGE INTERNAL STAIRS
5324 FUSELAGE FIXED PARTITIONS
5330 FUSELAGE MAIN PLATE/SKIN
5340 FUSELAGE MAIN ATTACH FITTINGS
5341 WING ATTACH FITTINGS (ON FUSELAGE)
5342 STABILIZER ATTACH FITTINGS
5343 LANDING GEAR ATTACH FITTINGS
5344 FUSELAGE DOOR HINGES
5345 FUSELAGE EQUIPMENT ATTACH FITTINGS
5346 POWERPLANT ATTACH FITTINGS
5347 SEAT/CARGO ATTACH FITTINGS
5350 FUSELAGE AERODYNAMIC FAIRINGS

54 NACELLES/PYLONS

5400 NACELLE/PYLON STRUCTURE
5410 MAIN FRAME (ON NACELLE/PYLON)
5411 FRAME/SPAR/RIB(NACELLE/PYLON)
5412 BULKHEAD/FIREWALL (NAC/PYLON)
5413 LONGERON/STRINGER (NAC/PYLON)
5414 PLATE SKIN (NAC/PYLONS)
5415 ATTACH FITTINGS (NAC/PYLON)

55 STABILIZERS

5500 EMPENNAGE STRUCTURE
5510 HORIZONTAL STABILIZER STRUCTURE
5511 HORIZONTAL STABILIZER SPAR/RIB
5512 HORIZONTAL STABILIZER PLATE/SKIN
5513 HORIZONTAL STABILIZER TAB STRUCTURE
5520 ELEVATOR STRUCTURE

55 STABILIZERS CONT'D

5521 ELEVATOR SPAR/RIB STRUCTURE
5522 ELEVATOR PLATES/SKIN STRUCTURE
5523 ELEVATOR TAB STRUCTURE
5530 VERTICAL STABILIZER STRUCTURE
5531 VERTICAL STABILIZER SPAR/RIB STRUCTURE
5532 VERTICAL STABILIZER PLATES/SKIN
5533 VENTRAL STRUCTURE (ON VERT. STAB)
5540 RUDDER STRUCTURE
5541 RUDDER SPAR/RIB STRUCTURE
5542 RUDDER PLATE/SKIN STRUCTURE
5543 RUDDER TAB STRUCTURE
5550 EMPENNAGE FLT. CONT. ATTACH FITTING
5551 HORIZONTAL STABILIZER ATTACH FITTING
5552 ELEVATOR/TAB ATTACH FITTINGS
5553 VERT. STAB. ATTACH FITTINGS
5554 RUDDER/TAB ATTACH FITTINGS

56 WINDOWS

5600 WINDOW/WINDSHIELD SYSTEM
5610 FLIGHT COMPARTMENT WINDOWS
5620 PASSENGER COMPARTMENT WINDOWS
5630 DOOR WINDOWS
5640 INSPECTION WINDOWS

57 WINGS

5700 WING STRUCTURE
5710 WING MAIN FRAME STRUCTURE
5711 WING SPAR STRUCTURE
5712 WING RIB STRUCTURE
5713 WING LONGERON/STRINGER
5714 WING CENTER BOX
5720 WING MISCELLANEOUS STRUCTURE
5730 WING PLATES/SKINS
5740 WING ATTACH FITTINGS
5741 WING, FUSELAGE ATTACH FITTINGS
5742 WING, NAC/PYLON ATTACH FITTINGS
5743 WING, LANDING GEAR ATTACH FITTINGS
5744 CONTROL SURFACE ATTACH FITTINGS
5750 WING CONTROL SURFACE STRUCTURE
5751 AILERON STRUCTURE
5752 AILERON TAB STRUCTURE
5753 TE FLAP STRUCTURE
5754 LEADING EDGE DEVICE STRUCTURE
5755 SPOILER STRUCTURE

61 PROPELLERS/PROPULSORS

6100 PROPELLER SYSTEM
6110 PROPELLER ASSEMBLY
6111 PROPELLER BLADE SECTION
6112 PROPELLER DE-ICE BOOT SECTION
6113 PROPELLER SPINNER SECTION
6114 PROPELLER HUB SECTION
6120 PROPELLER CONTROL SYSTEM
6121 PROPELLER SYNCHRONIZER SECTION
6122 PROPELLER GOVERNOR
6123 PROPELLER FEATHERING/REVERSING
6130 PROPELLER BRAKING
6140 PROPELLER INDICATING SYSTEM

62 MAIN ROTOR

6200 MAIN ROTOR SYSTEM
6210 MAIN ROTOR BLADES
6220 MAIN ROTOR HEAD
6230 MAIN ROTOR MAST/SWASHPLATE
6240 MAIN ROTOR INDICATING SYSTEM

63 MAIN ROTOR DRIVE

6300 MAIN ROTOR DRIVE SYSTEM
6310 ENGINE/TRANSMISSION COUPLING
6320 MAIN ROTOR GEARBOX
6321 MAIN ROTOR BRAKE
6322 ROTORCRAFT COOLING FAN SYSTEM
6330 MAIN ROTOR TRANSMISSION MOUNT
6340 ROTOR DRIVE INDICATING SYSTEM

64 TAIL ROTOR

6400 TAIL ROTOR SYSTEM
6410 TAIL ROTOR BLADE
6420 TAIL ROTOR HEAD
6440 TAIL ROTOR INDICATING SYSTEM

65 TAIL ROTOR DRIVE

6500 TAIL ROTOR DRIVE SYSTEM
6510 TAIL ROTOR DRIVE SHAFT
6520 TAIL ROTOR GEARBOX
6540 TAIL ROTOR DRIVE INDICATING SYSTEM

67 ROTORS FLIGHT CONTROL

6700 ROTORCRAFT FLIGHT CONTROL
6710 MAIN ROTOR CONTROL
6711 TILT ROTOR FLIGHT CONTROL
6720 TAIL ROTOR CONTROL SYSTEM
6730 ROTORCRAFT SERVO SYSTEM

71 POWERPLANT

7100 POWERPLANT SYSTEM
7110 ENGINE COWLING SYSTEM
7111 COWL FLAP SYSTEM
7112 ENGINE AIR BAFFLE SECTION
7120 ENGINE MOUNT SECTION
7130 ENGINE FIRESEALS
7160 ENGINE AIR INTAKE SYSTEM
7170 ENGINE DRAINS

72 TURBINE/TURBOPROP ENGINE

7200 ENGINE (TURBINE/TURBOPROP)
7210 TURBINE ENGINE REDUCTION GEAR
7220 TURBINE ENGINE AIR INLET SECTION
7230 TURBINE ENGINE COMPRESSOR SECTION
7240 TURBINE ENGINE COMBUSTION SECTION
7250 TURBINE SECTION
7260 TURBINE ENGINE ACCESSORY DRIVE
7261 TURBINE ENGINE OIL SYSTEM
7270 TURBINE ENGINE BYPASS SECTION

73 ENGINE FUEL & CONTROL

7300 ENGINE FUEL & CONTROL
7310 ENGINE FUEL DISTRIBUTION
7311 ENGINE FUEL-OIL COOLER
7312 FUEL HEATER
7313 FUEL INJECTOR NOZZLE
7314 ENGINE FUEL PUMP
7320 FUEL CONTROLLING SYSTEM
7321 FUEL CONTROL/ELECTRONIC
7322 FUEL CONTROL/CARBURETOR
7323 TURBINE GOVERNOR
7324 FUEL DIVIDER
7330 ENGINE FUEL INDICATING SYSTEM
7331 FUEL FLOW INDICATING
7332 FUEL PRESSURE INDICATING
7333 FUEL FLOW SENSOR
7334 FUEL PRESSURE SENSOR

74 IGNITION

7400 IGNITION SYSTEM
7410 IGNITION POWER SUPPLY
7411 LOW TENSION COIL
7412 EXCITER
7413 INDUCTION VIBRATOR
7414 MAGNETO/DISTRIBUTOR
7420 IGNITION HARNESS (DISTRIBUTION)
7421 SPARK PLUG/IGNITER
7430 IGNITION SWITCHING

75 AIR

7500 ENGINE BLEED AIR SYSTEM
7510 ENGINE ANTI-ICING SYSTEM
7520 ENGINE COOLING SYSTEM
7530 COMPRESSOR BLEED CONTROL
7531 COMPRESSOR BLEED GOVERNOR
7532 COMPRESSOR BLEED VALVE
7540 BLEED AIR INDICATING SYSTEM

76 ENGINE CONTROLS

7600 ENGINE CONTROLS
7601 ENGINE SYNCHRONIZING
7602 MIXTURE CONTROL
7603 POWER LEVER
7620 ENGINE EMERGENCY SHUTDOWN SYSTEM

77 ENGINE INDICATING

7700 ENGINE INDICATING SYSTEM
7710 POWER INDICATING SYSTEM
7711 ENGINE PRESSURE RATIO (EPR)
7712 ENGINE BMEP/TORQUE INDICATING
7713 MANIFOLD PRESSURE (MP) INDICATING
7714 ENGINE RPM INDICATING SYSTEM
7720 ENGINE TEMP. INDICATING SYSTEM
7721 CYLINDER HEAD TEMP (CHT) INDICATING
7722 ENG. EGT/TIT INDICATING SYSTEM
7730 ENGINE IGNITION ANALYZER SYSTEM
7731 ENGINE IGNITION ANALYZER
7732 ENGINE VIBRATION ANALYZER
7740 ENGINE INTEGRATED INSTRUMENT SYSTEM

78 ENGINE EXHAUST

7800 ENGINE EXHAUST SYSTEM
7810 ENGINE COLLECTOR/TAILOPIPE/NOZZLE
7820 ENGINE NOISE SUPPRESSOR
7830 THRUST REVERSER

79 ENGINE OIL

7900 ENGINE OIL SYSTEM (AIRFRAME)
7910 ENGINE OIL STORAGE (AIRFRAME)
7920 ENGINE OIL DISTRIBUTION (AIRFRAME)
7921 ENGINE OIL COOLER
7922 ENGINE OIL TEMP. REGULATOR
7923 OIL SHUTOFF VALVE
7930 ENGINE OIL INDICATING SYSTEM
7931 ENGINE OIL PRESSURE
7932 ENGINE OIL QUANTITY
7933 ENGINE OIL TEMPERATURE

80 STARTING

8000 ENGINE STARTING SYSTEM
8010 ENGINE CRANKING
8011 ENGINE STARTER
8012 ENGINE START VALVES/CONTROLS

81 TURBOCHARGING

8100 EXHAUST TURBINE SYSTEM (RECIP)
8110 POWER RECOVERY TURBINE (RECIP)
8120 EXHAUST TURBOCHARGER

82 WATER INJECTION

8200 WATER INJECTION SYSTEM

83 ACCESSORY GEARBOXES

8300 ACCESSORY GEARBOXES

85 RECIPROCATING ENGINE

8500 ENGINE (RECIPROCATING)
8510 RECIPROCATING ENGINE FRONT SECTION
8520 RECIPROCATING ENGINE POWER SECTION

8530 RECIPROCATING ENGINE CYLINDER SECTION
8540 RECIPROCATING ENGINE REAR SECTION
8550 RECIPROCATING ENGINE OIL SYSTEM

MECHANICS CREED

UPON MY HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a certified mechanic. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.

IN DISCHARGING this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge; nor shall I allow any non-certificated superior to persuade me to approve aircraft or equipment as airworthy against my better judgment; nor shall I permit my judgment to be influenced by money or other personal gain; nor shall I pass as airworthy aircraft or equipment about which I am in doubt, either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.

I REALIZE the grave responsibility which is mine as a certified airman, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation.